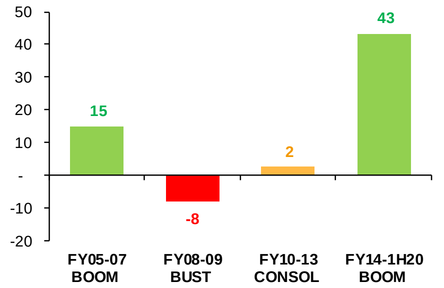
19 December 2019 India

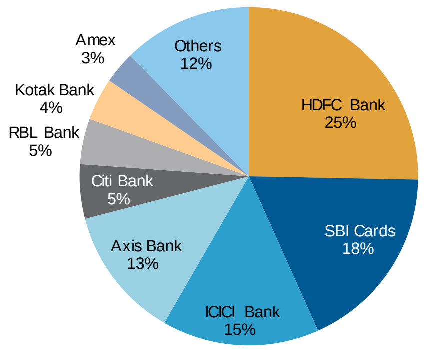
EQUITIES

Net credit cards issued by industry (m)



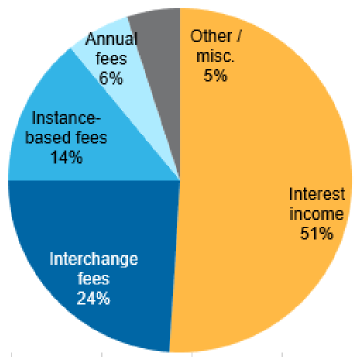
Source: RBI, Company data, Macquarie Research, Dec '19

Market share by no. of cards (1HFY20)



Source: RBI, Company data, Macquarie Research, Dec '19

Revenue mix (%) – SBI Cards (FY19)



Source: RBI, Company data, Macquarie Research, Dec '19

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The Prize - India Consumer Finance

Deep dive: India's credit card industry (Part 1)

Key points

- In Part 1 of our deep dive, we cover the macros – an overview of the industry, explaining business models, opportunity size, competition, risks.
- The industry has immense growth potential, for both payments and credit.
- Competitive intensity is benign, growth is robust (30%+), regulatory and other risks, while undeniable, do not appear to be on the horizon.

About the industry:

- India's young credit card industry has ~53m cards across ~31m customers as of 1HFY20 (<5% per capita). Loans outstanding (o/s) have topped Rs1tr (<1% of system credit), while annual card spends have topped Rs6tr (<6% of non-cash spends). The industry went through a long consolidation phase after the GFC (FY08-13), but in the past six years has emerged stronger and entered a new boom cycle. Over FY14-19, cards-in-use grew ~20% CAGR while spends and loans o/s grew ~30% CAGR.

Industry dynamics & anatomy:

- **The business model:** Credit cards solve two financial needs – non-cash payments and short-term consumer credit. The payments earn fees on spends (interchange charges) and collect data on the customer, while the credit earns interest from customers opting to either revolve the dues or convert them to an EMI-based loan (20-42% yields). Companies incentivise customers with reward points / air miles to capture wallet share and earn stable, non-credit linked interchange fees from merchants. The contribution from fees and interest to gross revenue is roughly 50-50.
- **Size of the prize:** India's bureau CIBIL has 400m+ unique records, of which only 170m currently have a retail loan. Of these, 31m currently have a credit card and we think there is scope to raise this to ~100m in the medium term. For context, India had ~50m individuals with reported taxable income above the exempt limit in FY18. With payments, cash is still king in India. Cash spends account for ~85% of all transactions. Within non-cash spends, credit card spends are a tiny fraction of the pie at ~6%. It is a misnomer that card spends compete with new payment modes such as UPI and digital wallets.
- **Competitive landscape:** While there are 30+ companies offering cards in India, the top 4 control 70%+ of cards/spends' market share. Much like in India's life insurance business, top banks with a large, captive retail customer base enjoy a massive right-to-win. Large private banks sell 80-95% of their credit cards through cross-sells to internal customers, while smaller banks such as IndusInd and RBL Bank have relied on partnerships, co-branding and external sourcing. SBI Cards, a subsidiary of SBI which houses the bank's card business, is transitioning from being externally focused to more internal sourcing. Virtually all other PSU banks are absent from the space.
- **Risks:** (1) Regulatory caps on interchange fees on interest rates on revolver limits, (2) poor underwriting in a retail asset quality bust cycle, and (3) increased competitive intensity, especially with new-age fintechs.

Food for thought?

- We'll be back with Part 2 of the deep dive. For now, we leave you with some food for thought – if half the revenues come from credit (cyclical) and the other half from fees (linear), what's the best valuation tool – P/BV or PER?

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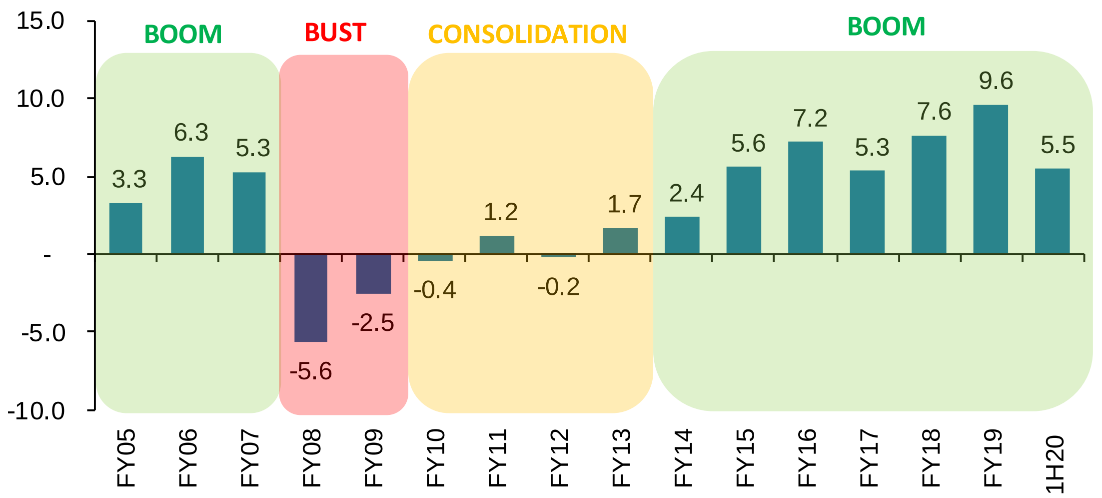
About India's credit card industry:

The past & the present: India's credit card industry has 52.6m cards across 31.1m individual customers as of 1HFY20. Revolving loans o/s have topped Rs1tr (still <1% of system credit), while credit card spends have topped Rs6tr (<6% of non-cash spends). The industry went through a long consolidation phase after the global financial crisis (GFC) between FY08-13, but in the past five years has entered a new boom cycle. In the past five years, cards-in-force have grown ~20% CAGR while spends and loans o/s have grown at ~30% CAGR. Improving credit card penetration (still <5% per capita), higher proclivity of digital spends and higher rollover rates are key catalysts for this growth. The industry has flourished with the advent of the credit bureau – CIBIL post GFC, an emphasis on building data warehouses by card issuers and intelligent analytics to underwrite risk better.

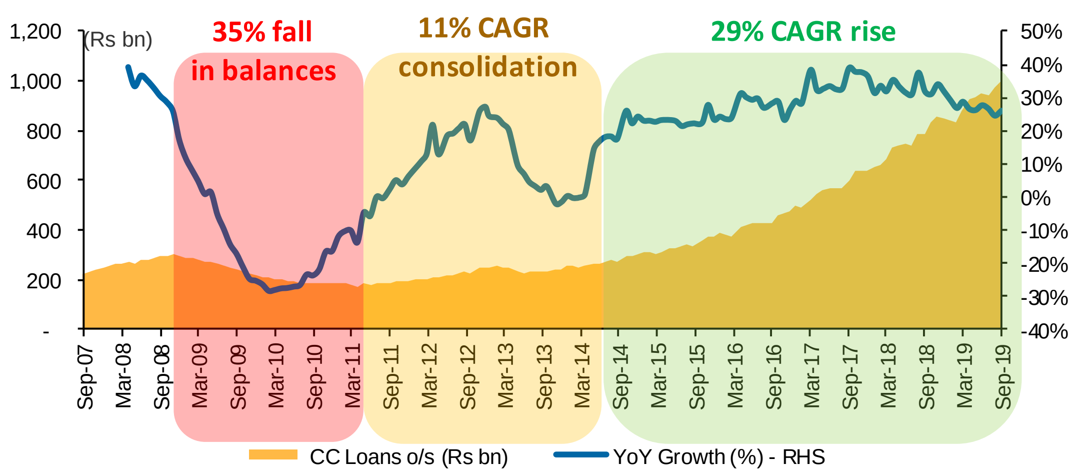
Leading players and market share: The industry is competitive, though the top 4 players control 70% of the market, both in terms of number of cards in use and spends. Since the market itself is growing materially, we have not seen any aggressive competitive practices play out. Yields are still high, reward and acquisition costs are still manageable, and underwriting has been robust. HDFC Bank is the clear market leader, accounting for 25%, 28% and 50% of number of cards, spends and loans outstanding. SBI Cards (a separate credit cards subsidiary of SBI – the only bank with such a structure), ICICI Bank and Axis Bank are the next largest, in that order (see Fig 4). Other notable players include American Express (a standalone credit card issuer with no parent bank), Citi Bank and RBL Bank, followed by a long tail of small banks.

Fig 1 Net credit card additions at industry level (millions)



Source: SBI, RBI, Macquarie Research, December 2019

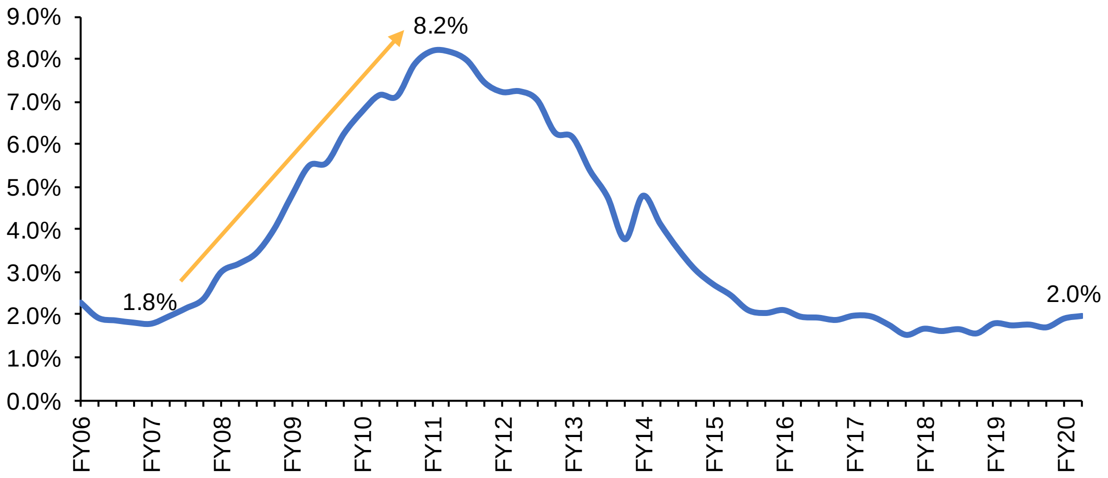
Fig 2 Credit card loans outstanding at industry level (Rs bn)



Source: RBI, Macquarie Research, December 2019

This business is not without risks: In the previous retail asset quality cycle, most of the customer acquisition was external (not to existing liability customers of the bank). Nor was the credit bureau machinery in place. Inevitably, post-GFC, this led to a blow up of the retail unsecured asset quality. ICICI Bank was one of the most badly affected leading players and saw retail NPLs balloon from ~2% to ~8% with rising defaults in small-ticket personal loans and credit cards.

Fig 3 ICICI Bank retail asset quality – long-term trend



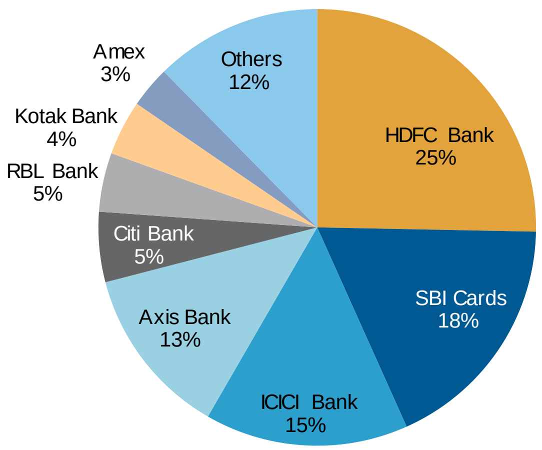
Source: Company data, Macquarie Research, December 2019

Fig 4 Market share of top 5 players

	Size of industry		Market Share (%)		
	No of cards 1H20 (m)	FY19 Spends (Rs bn)	No of cards 1H20	FY19 Spends	1H20 Loans (Rs bn)
HDFC Bank	13.3	1,704	25%	28%	520
SBI Cards & Payments	9.5	1,038	18%	17%	223
ICICI Bank	7.9	673	15%	11%	147
Axis Bank	6.6	621	13%	10%	137
Citi Bank	2.7	532	5%	9%	NA
Others	12.5	1,431	24%	24%	NA

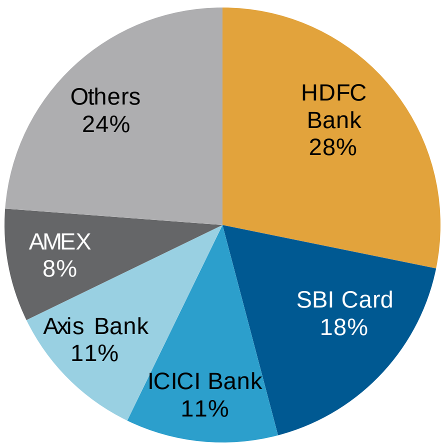
Source: Company data, Macquarie Research, December 2019

Fig 5 Market share by cards in force



Source: RBI, Company data, Macquarie Research, December 2019

Fig 6 Market share by spends



Source: RBI, Company data, Macquarie Research, December 2019

Explaining the business model

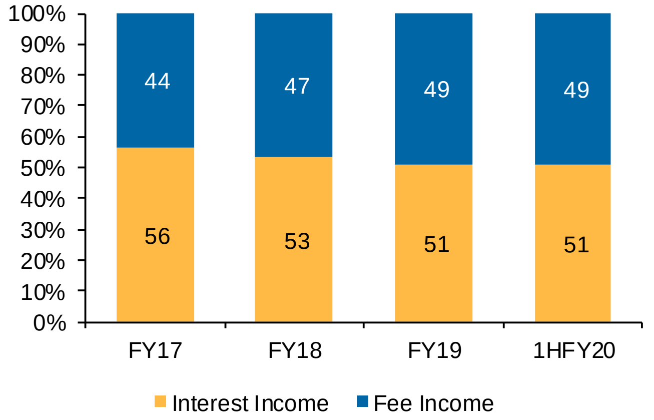
Revenue streams – 50/50 fees & interest: The industry has two distinct streams of income – net interest income and fees. While the exact mix differs from player to player, both contribute roughly equally to the topline.

- **Interest Income is easily understood** – cards offer customers a revolving line of credit (typically yields are very high at 30-42% p.a.) and if you cannot pay back within the stipulated due dates of bill cycle + 20 days, you are charged interest. Off late, players have also introduced Equated Monthly Instalment (EMI)-format short-term personal loans on large spends on credit cards. How it works: when the customer makes a purchase above a specified amount with a credit card, instead of paying the entire amount on the due date, he / she can convert an amount equivalent to that purchase into a relatively lower-yield (15-20%) EMI-based loan to be repaid over 3-12 months. It essentially works like a short-term personal loan.
- **Fee income is lesser understood of the two** – Fees are earned not only from the customer, but also from merchants where credit cards are used for making purchases.
  - ⇒ **Spend-based income** primarily consists of interchange fees or merchant discount rate (MDR) earned as consideration for transactions facilitated by credit cards. Since these fees are earned as a percentage of spending levels, banks offer incentives (reward points, air miles, cashbacks) to increase spending throughput and increase the pool of fee income. MDR tends to be less linked to the credit cycle, and hence offers scope for linear, structural growth in revenue. For market leaders, these fees are usually 50%+ of fee income (30%+ of net total revenue).
  - ⇒ **Subscription-based fees**: eg annual charges and renewal charges are charged to cardholders. These fees are annuity-based with a high degree of visibility of recurrence and are driven by the size of the cardholder base.
  - ⇒ **Instance-based fees:** eg: over-limit penalties, cash withdrawal fees, processing fees, reward point redemption fees, service charges for various cross-sell or value-added products, etc.

Comparing RBL Bank & SBI Cards

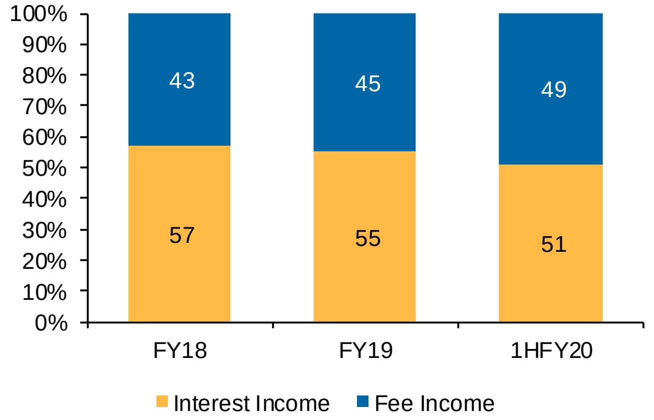
While we delve into cross-company comparisons in detail in later sections, we present below some additional data given by RBL Bank & SBI Cards to give you an overview of the split of revenue, mix within fee income and AUM. Granular data for other top card issuers is not available.

Fig 7 Revenue split – SBI Cards (%)



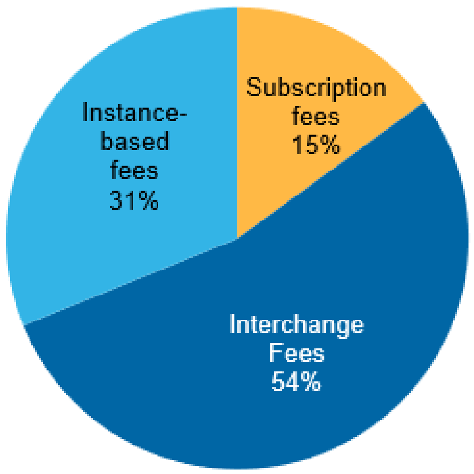
Source: Company data, Macquarie Research, December 2019

Fig 8 Revenue split – RBL Bank (%)



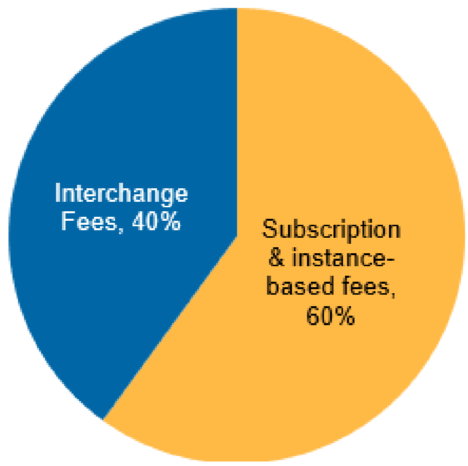
Source: Company data, Macquarie Research, December 2019

Fig 9 Fee Income split – SBI Cards (FY19)



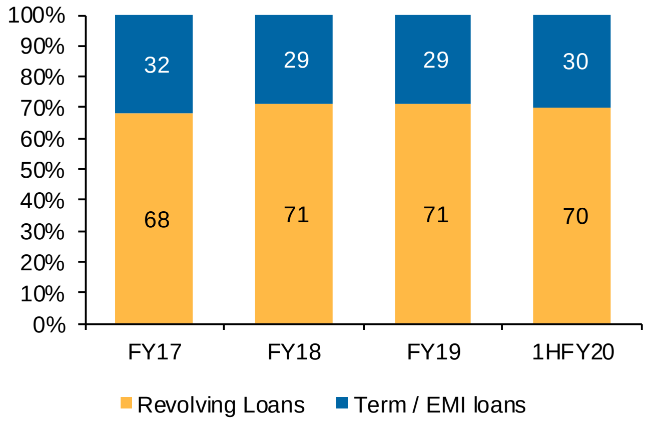
Source: Company data, Macquarie Research, December 2019

Fig 10 Fee Income split – RBL Bank (FY19)



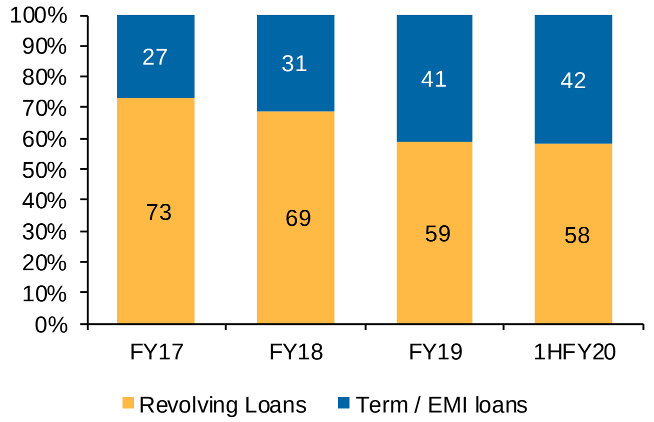
Source: Company data, Macquarie Research, December 2019

Fig 11 Loan mix – SBI Cards (%)



Source: Company data, Macquarie Research, December 2019

Fig 12 Loan Mix – RBL Bank (%)



Source: Company data, Macquarie Research, December 2019

A template DuPont: what are the bull, bear & base cases

On average, we think the cards business can easily generate best-in-class RoE during the normal course of business. SBI Cards for example has not seen its RoE dip below 25% in the past 6-7 years and has averaged ~30% ROE during that time.

The biggest catalyst for a bear case to play out is a retail asset quality down-cycle. In our view, based on inferences from India's own history and learnings from global crises in the past, we estimate that provisions can be 2-3x from the base case of ~6% of assets in such an event. This can plunge the business' RoA into negative territory.

Fig 13 Typical DuPont model for credit cards business

DuPont (average assets)	Bull	Base	Bear	Comments
Interest income	20.0	20.0	18.5	Revolver loans have yields of 40%+ while EMI-loans earn ~20%
Interest expense	7.0	7.0	7.0	Depends on banks' CASA & retail franchise / NBFC's credit rating
Net Interest income	13.0	13.0	12.0	
Fee Income	20.0	19.0	19.0	Largely driven by spends-related interchange (MDR) fees
Total Income	33.0	32.0	31.0	
Operating expenses	19.0	20.0	20.0	Customer acquisition, reward points and transaction costs
Pre-provisioning profit	**14.0**	**12.0**	**11.0**	
Provisions	**5.5**	**6.5**	**13.0**	**In a stress cycle, provisions can 2-3x (See Fig 3)**
PBT	8.5	5.5	-2.0	
Taxes @ 25%	2.1	1.4	-0.5	Corporate tax rate now down to 25% vs 34% earlier
ROAA	**6.4**	**4.1**	**-1.5**	
Leverage	6.5	6.5	6.5	Risk weight of 125% for banks; 100% for NBFCs like SBI Cards
ROAE	**41.4**	**26.8**	**- 10**	

Source: Company data, Macquarie Research, December 2019

Fig 14 Historical ROE Dupont: SBI Cards (one of India's only standalone credit card companies)

DuPont (average assets)	I-GAAP				INDAS		
(%)	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Interest income	17.2	20.8	19.7	19.5	20.3	21.0	20.0
Interest expense	6.0	7.4	6.8	6.1	5.7	5.4	5.7
Net Interest income	**11.2**	**13.5**	**12.9**	**13.4**	**14.6**	**15.6**	**14.4**
Fee & other Income	13.1	16.2	15.0	15.7	17.0	19.8	20.8
Total Income	24.3	29.6	27.9	29.2	31.6	35.4	35.1
Operating expenses	16.9	18.1	18.7	19.2	19.7	22.3	21.9
Pre-provisioning profit	**7.4**	**11.5**	**9.2**	**10.0**	**11.9**	**13.1**	**13.2**
Provisions	3.5	4.4	4.2	3.8	5.7	6.1	5.7
PBT	**3.9**	**7.1**	**4.9**	**6.2**	**6.1**	**7.0**	**7.5**
Provision for Tax	(0.0)	0.0	0.1	2.2	2.1	2.4	2.6
ROAA	**3.9**	**7.1**	**4.9**	**4.0**	**4.0**	**4.6**	**4.8**
Leverage	7.7	6.9	6.4	6.7	7.1	6.9	6.0
ROAE	**30.1**	**48.9**	**31.2**	**26.8**	**28.6**	**31.7**	**29.1**

Source: Company data, Macquarie Research, December 2019

Risks to industry's attractiveness

- **A retail asset quality bust cycle:** Any persistent economic downturn, which results in job losses, can result in credit costs of this unsecured business spiralling out of control. As illustrated above, this may even lead to ROAs turning negative for the industry. Quality of underwriting is thus critical.
- **Regulatory caps or competitive pressures on interchange (MDR) on interest rates:** India's MDR rates range between 1.6-2.5%, while yields on credit card revolver loans range between 30-42%. Competition & regulatory environment have both so far been benign, but this can change over time. In China, banks MDR & interest rates are capped at 60bps and 18%, respectively – this is materially lower than in India.
- **Increased competitive intensity, especially with new-age businesses and fintechs:** In China, as we will learn in sections below, market leaders in cards business have lost market share to new industry incumbents and fintech players. Some of them have spun off from large banks themselves.

Customer acquisition and the anatomy of Indian credit card user base:

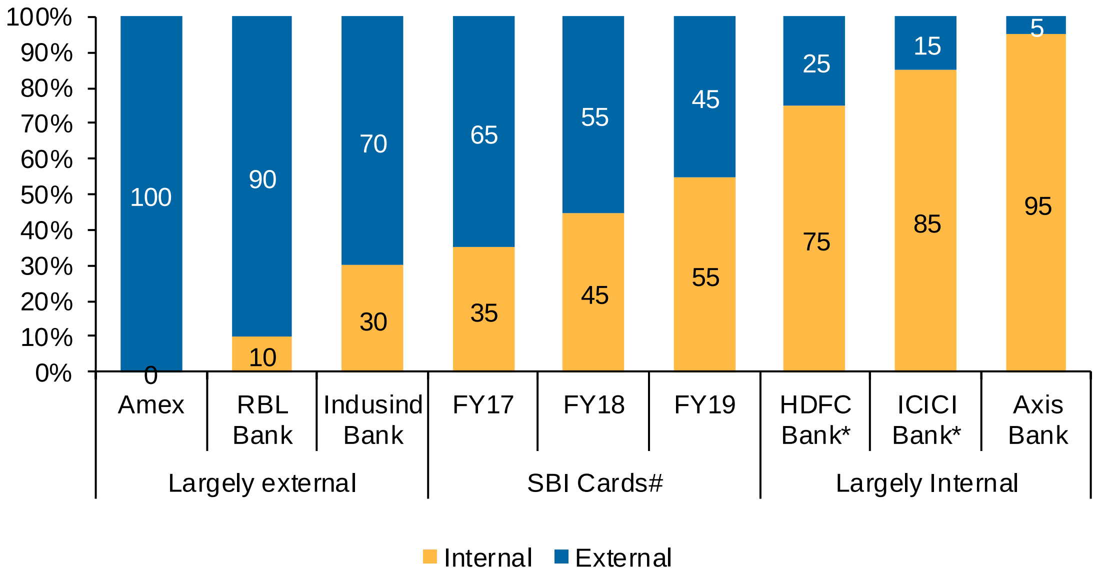
Sourcing: captive retail franchise is an important right-to-win: There are two broad philosophies being followed, depending on franchise strength of the parent bank:

⇒ **Large private banks like HDFCB, ICICI and Axis Bank** (#1, #3 and #4 in market share) have largely stuck to mining their existing, internal liability customer pool to cross-sell credit cards. There are virtually no customer acquisition costs here, and default rates tend to be lower given the deeper relationship with the customer and better underwriting capacities. Its low-hanging fruit to be plucked. As per HDFCB, they have a 50m+ customer base that is growing each year, of which they have only tapped ~13m customers for cards. There is thus room for them to card more of their existing customer base, which itself is growing.

⇒ **AMEX and banks such as RBL Bank and IndusInd Bank** either do not have a parent bank or do not have a large retail liability customer base and rely largely on external sourcing of customers. This entails open market sourcing with fleet on street, tele-sales and strategic partnerships. One such strategy is co-branding partnerships with lifestyle, ecommerce, taxi aggregator, fuel retailing etc. companies where the card issuer taps the retail customer pool of the partner. Banks such as RBL Bank have also partnered with India's leading NBFC – Bajaj Finance – for sourcing credit cards.

⇒ **SBI Cards** (#2 by market share) has relied on both internal and external sourcing. These banks comprise the largest retail customer franchises in the country and have effectively cross-sold to their good customers. HDFC Bank has been the market leader in the cards space for years, but SBI Cards is also quickly catching up. In October 2017, SBI launched Project Shikhar as a joint effort between SBI Cards and SBI to market credit card products to SBI's customers. New accounts sourced from SBI's existing customer base have risen from ~35% of all new accounts in FY17 to 45% in FY18 and 55% in FY19.

Fig 15 Customer acquisition strategies of top players



Source: Company data, Industry sources, Macquarie Research, December 2019 *Macquarie estimates #from DRHP

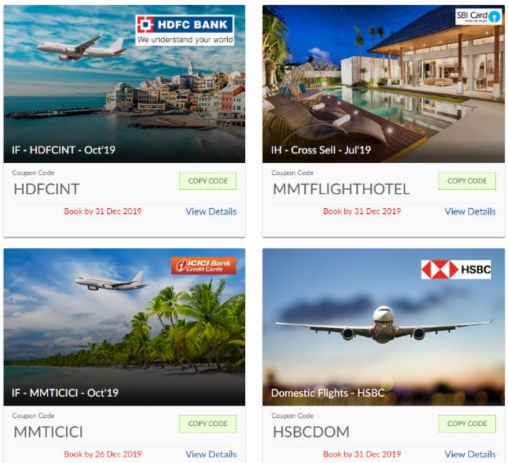
Fig 16 Partnerships with e-commerce website (Flipkart) for sourcing customers

Source: Company website, Macquarie Research, December 2019

Fig 17 Direct-to-customer card sourcing kiosk at Hyderabad Airport

Source: Macquarie Research, December 2019

Fig 18 Partnerships with online travel website MakeMyTrip for sourcing customers



Source: Company website, Macquarie Research, December 2019

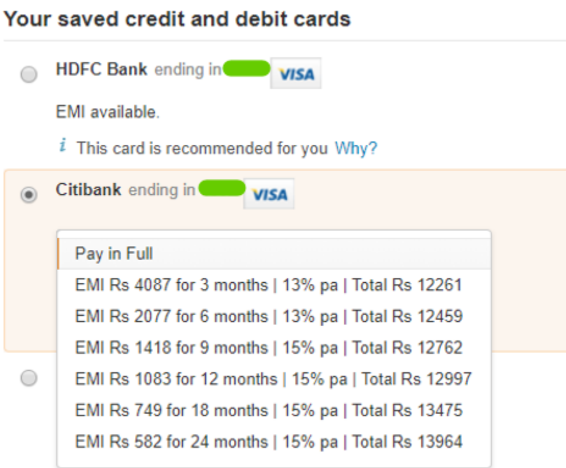
Fig 19 Partnerships with retail electronics chains (Chroma) for sourcing customers

Source: Macquarie Research, December 2019

Fig 20 Incentivizing spends through attractive rewards

Source: Macquarie Research, December 2019

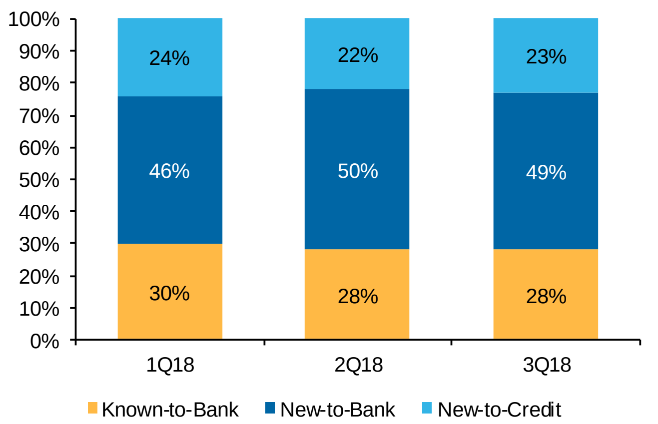
Fig 21 EMI-conversions for large purchases on credit cards



Source: Company website, Macquarie Research, December 2019

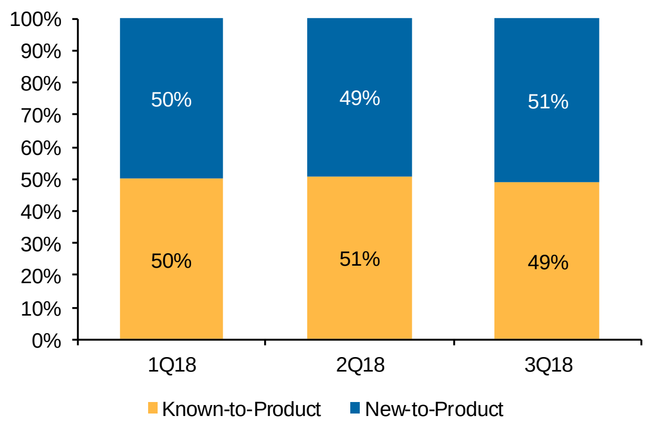
- **Anatomy of customer relationships with banks:** At a system level, ~30%of customers already have an existing retail asset relationship with the bank (say a home loan or car loan). One-fourth of card customers are new-to-credit, while half are new to bank (with regard to retail assets) – i.e. these categories may have an existing liability relationship with the bank but not an existing retail asset relationship.

Fig 22 1/4th of customers are new to credit



Note: New-to-bank refers only to the asset side. Many customers may have an existing liability relationship with the bank, not captured in the data above. Source: CIBIL, Macquarie Research, December 2019

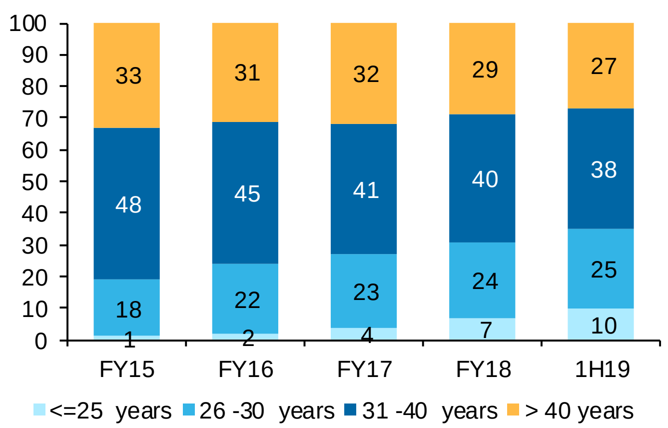
Fig 23 1/2 of customers already have a card



Note: Known-to-product represents customers who already have a card, likely from a competitor. Source: CIBIL, Macquarie Research, Dec 2019

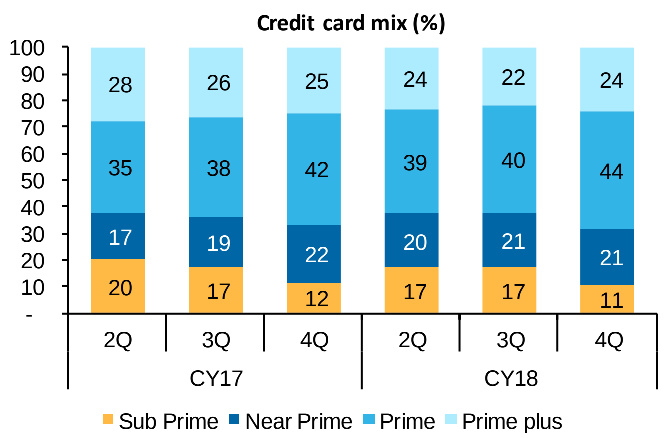
- **Demographics of customer segments:** Credit card originations among millennials (<30 years) has increased from 19% to 35% over FY15-1HFY20. Share of customers below 25 years of age has increased 10x as well. (1) Change in consumer mindset from being debt-averse to increasing indebtedness, (2) strong growth in ecommerce, (3) a tech-savvy younger generation, and (4) increasing discretionary spending on leisure activities (entertainment and eating out, apparel, accessories and electronics) has increased credit-card spending by this age group. Inquiries for credit cards have increased at a much higher pace than the increase in originations. Due to this, the overall approval rate has reduced over the years. Approval rate for customers over 40 years of age has remained close to ~50% over the past 3 years.

Fig 24 Sourcing from younger customers on the rise



Source: CIBIL, Company data, Macquarie Research, December 2019

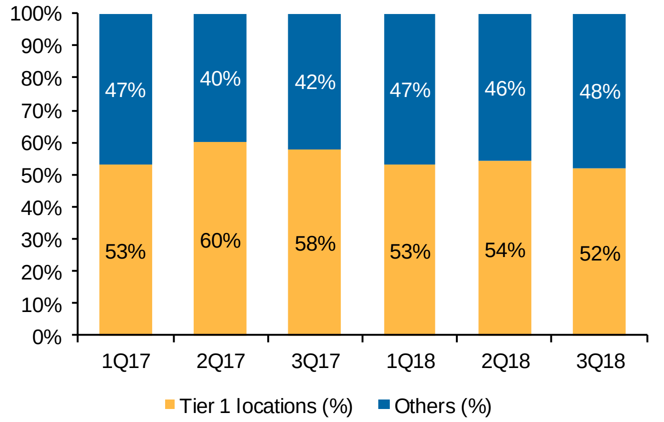
Fig 25 ~70% of lending to prime & prime-plus customers



Source: CIBIL, Company data, Macquarie Research, December 2019

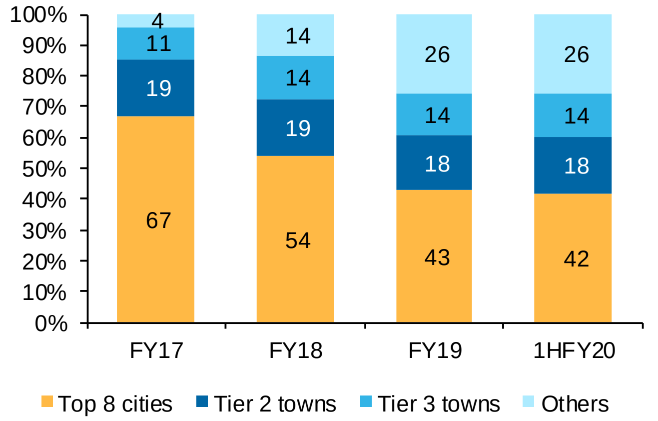
- **Diversifying outside top cities:** Historically, the focus has been the low-hanging fruit of high-income earners from India's top cities. We believe room to add new customers in top cities, except for migrant skilled labour, is on the decline. Players will now have to venture beyond the top 8 cities for sourcing new customers to maintain the high growth phase. Fig 27 shows how SBI Cards' share of customers from the top 8 cities has dropped from 67% in FY17 to 42% in 1HFY20, with additions largely from Tier-4 towns and below. The mix of the latter has risen from 4% to 26% in the same time frame.

Fig 26 Geographic sourcing mix – Industry



Note: Tier-1 is defined to include Mumbai, National Capital Region (NCR), Chennai, Kolkata, Hyderabad, Bengaluru, Pune and Ahmedabad. Source: CIBIL, Macquarie Research, December 2019

Fig 27 Geographic sourcing mix – SBI Cards

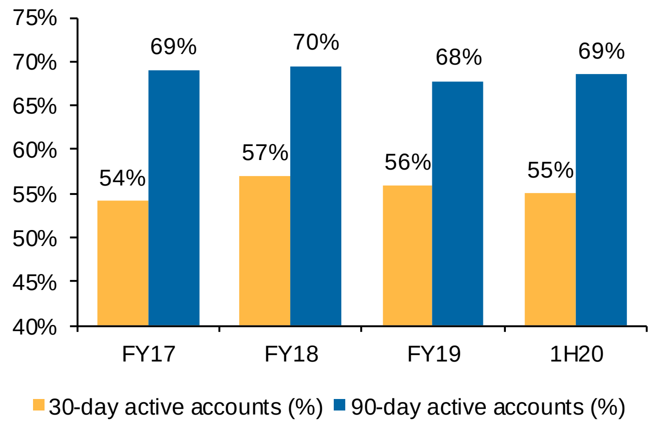


Source: Company data, Macquarie Research, December 2019

While we don't have industry data on salaried vs non-salaried and active vs inactive cardholders, we think the below mix from SBI Cards should be broadly indicative of the industry.

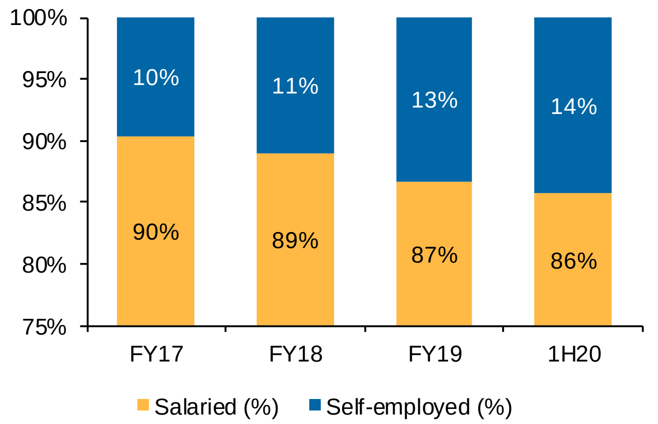
- **The industry has largely only carded salaried class and the upper tiers of self-employed professionals** such as doctors, lawyers, chartered accountants, consultants and big businessmen. Compared to ~50m individuals with reported taxable income above the exempt limit in FY18 (despite poor tax filing culture), only ~31m unique customers have been carded so far.
- ~**70% of SBI Cards' customers are active (transacting) on a 3-month basis and ~55% on a 1-month basis.**

Fig 28 SBI Cards – active vs inactive cardholders



Source: Company data, Macquarie Research, December 2019

Fig 29 SBI Cards – salaried vs self-employed cardholders



Source: Company data, Macquarie Research, December 2019

How has asset quality behaved globally and in India?

Success in the cards business depends on the ability to manage credit risk while attracting new cardholders with profitable usage patterns. Underwriting models cannot usually predict loss of employment, prolonged illness or macro-economic downturns. Cardholders with insufficient cash flow to fund daily living costs and lack of access to other credit may be more likely to increase their card usage and ultimately default on their payment obligations, resulting in higher credit losses for the card issuer.

Companies must achieve a reasonable balance between transacting and revolving customers to avoid sharp asset quality deterioration in a downturn. An important characteristic of revolvers is that they tend to have poorer savings and credit habits, lower credit scores and potentially higher propensity to default.

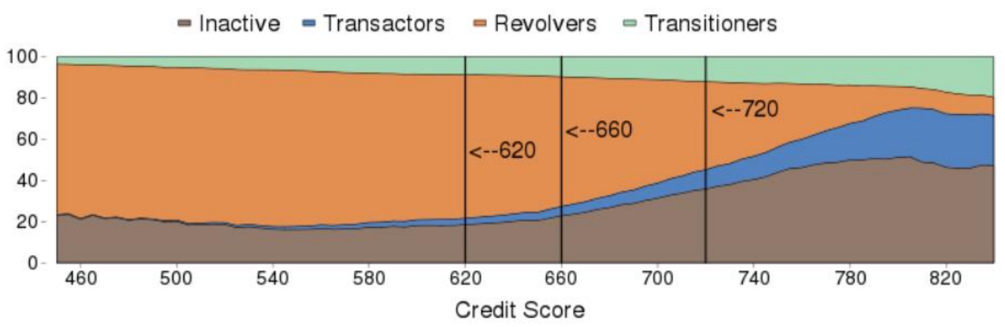
Observations in Asia during credit card asset quality down-cycles: Impaired assets for Hong Kong's credit-card businesses jumped to 15% at the peak of its crisis (2001). NPLs jumped to above 6% for Taiwan's cash card loans (2006) and Korean credit card companies saw NPLs above 11% at the peak (2002), in addition to the more frequent and high level of charge-offs at the time.

What caused problems in Asia? Waning corporate loan demand, combined with easy monetary conditions, boosted competitive appetites and led lenders to lower their underwriting standards in the past Asian episodes. In addition to generally easier loan standards, market participants often deliberately targeted subprime segments for their higher potential returns.

- **In Hong Kong**, overextended consumers found themselves in a difficult situation when employment conditions deteriorated.
- **In Korea**, specialized credit-card service providers dominated the market, but regulations prevented them from taking deposits. They funded the credit expansion by tapping capital markets. The relationship between asset-quality deterioration and funding difficulties caused turmoil.
- At the peak of the credit-card bubble **in Taiwan**, banks' cash-card balances made up nearly half of total card receivables (including credit cards and cash cards) outstanding. Rollovers between credit cards and cash cards led to spiralling debt problems.
- While some banks, and many fintechs, have said technology provides superior consumer-lending screening tools than traditional banking, this claim has yet to be tested by a full consumer credit cycle **in China**.

Observations in US: Fig 30 shows how skewed the propensity to revolve loans is in the US, towards sub-prime customers with bad FICO scores. Baseline delinquencies virtually doubled post-GFC in the US, followed by much stricter underwriting by card companies with a material slowdown in near-prime, sub-prime and deep sub-prime lending.

Fig 30 US – propensity to revolve credit card dues and credit score linkages



Terminology:

• Inactive: If there are no purchases, balances, or payments made in two billing cycles.

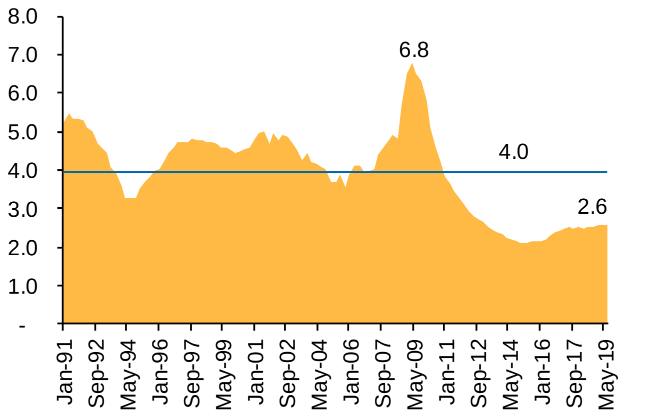
• Transactors: If an account is not inactive and any balance on it is paid in full for two billing cycles.

• Revolvers: Accounts that carry an outstanding balance net of payments, in any of the two recent cycles.

• Transitioners: All remaining accounts, or those that transition between the above categories from one month to the next.

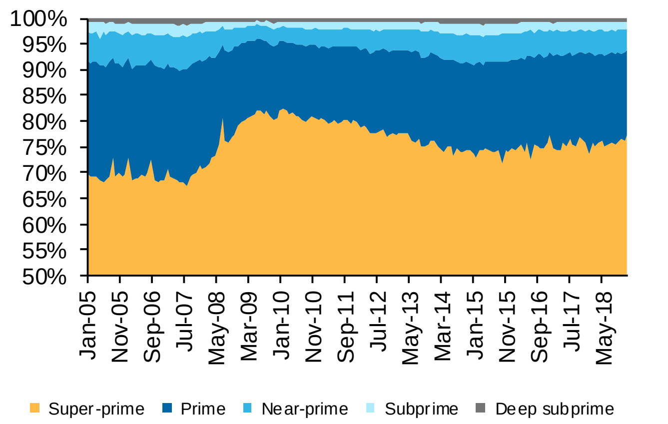
Source: US credit card industry regulators, Macquarie Research, December 2019

Fig 31 US – 30-year trend in credit card NPLs (%)



Source: US regulators, Macquarie Research, December 2019

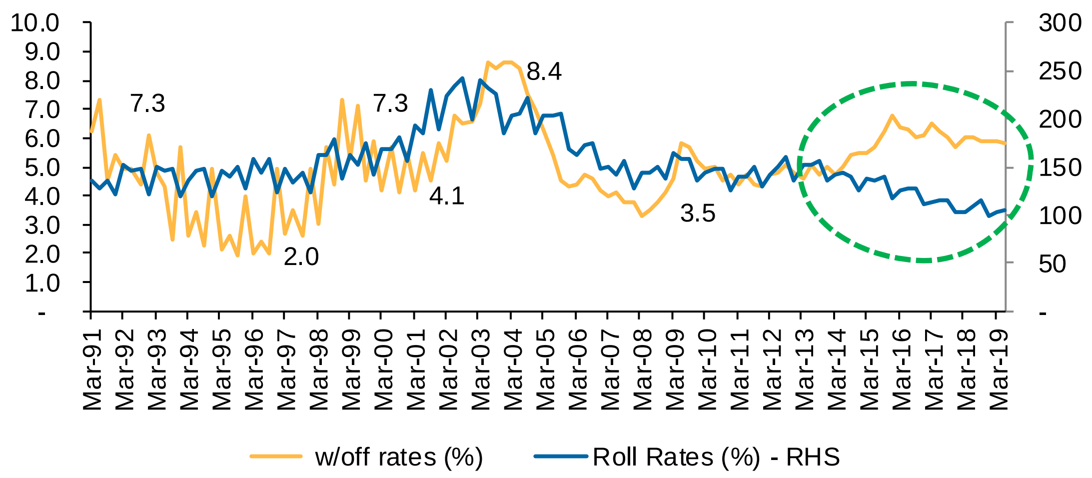
Fig 32 US – long-term trend in credit card issuances (%)



Source: US regulators, Macquarie Research, December 2019

Observations in Singapore: The experience is similar in Singapore as well – higher revolve rates = higher delinquencies. Off late however, the relationship has broken down, with delinquencies remaining elevated even as roll rates have come off.

Fig 33 Singapore – high correlation between write-off rates and revolve rates

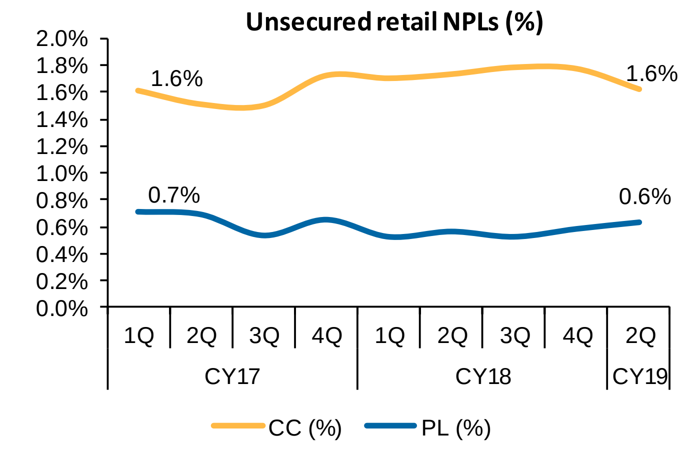


Source: MAS, Macquarie Research, December 2019

In India, unsecured retail loans are doing better than secured retail loans

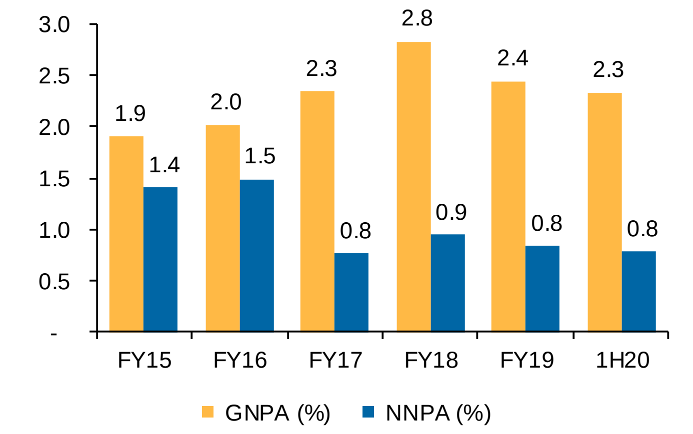
- Delinquencies have remained benign despite the strong growth witnessed in the past five years and despite the recent economic slowdown and job losses. This is because the penetration is so low, India is still picking low-hanging fruit of lending to the best customers, internal to the banks.
- Approximately 75% of the lending in unsecured loans has been done by the top 5 banks and NBFCs, who have a large data warehouse on customers, have made significant investments in analytics and have not resorted to aggressive pricing competition to capture market share.
- Delinquency behaviour in credit cards, too, has been similar (see Fig 38). At a system level, early bucket delinquencies (30-day NPLs) have remained below 5% while 90-day NPLs have been below 2%. Compared to this, 30dpd and 90dpd NPLs were 3.5% and 8.9% for loans against property (LAP) and 2.7% and 7.1% for vehicle loans (see Fig 39 and 40)

Fig 34 Unsecured loan NPLs at an industry level



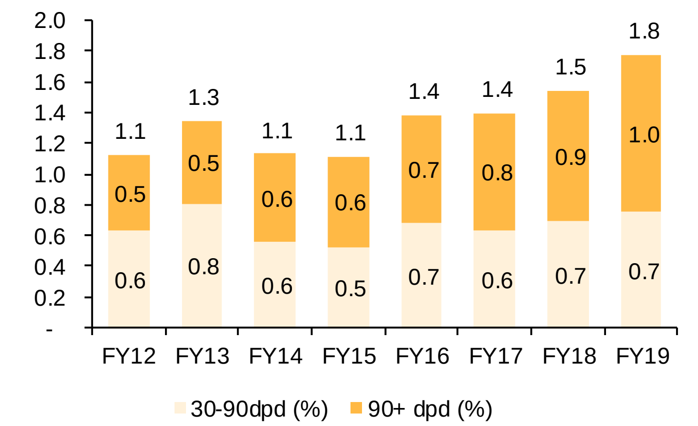
Source: Company data, Macquarie Research, December 2019

Fig 35 SBI card – NPL formation



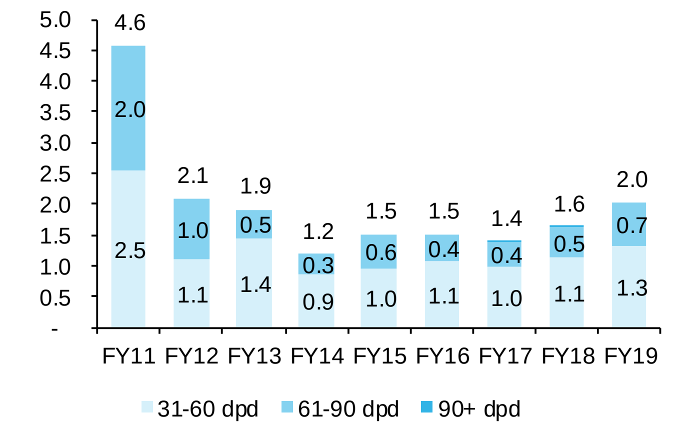
Source: Company data, Macquarie Research, December 2019

Fig 36 HDFCB Personal Loan & Credit Card delinquencies



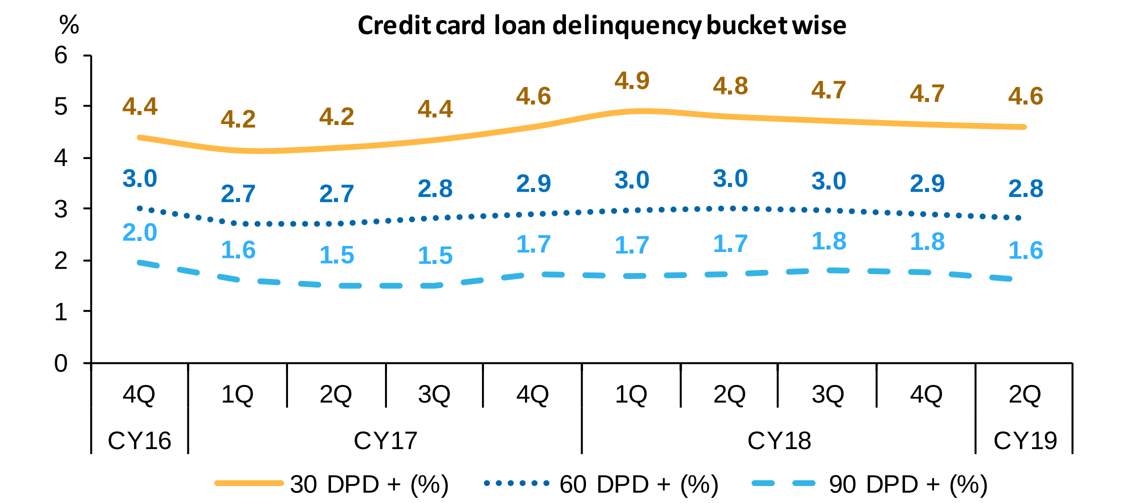
Source: CIBIL, Macquarie Research, December 2019

Fig 37 ICICI Bank Credit Card delinquencies



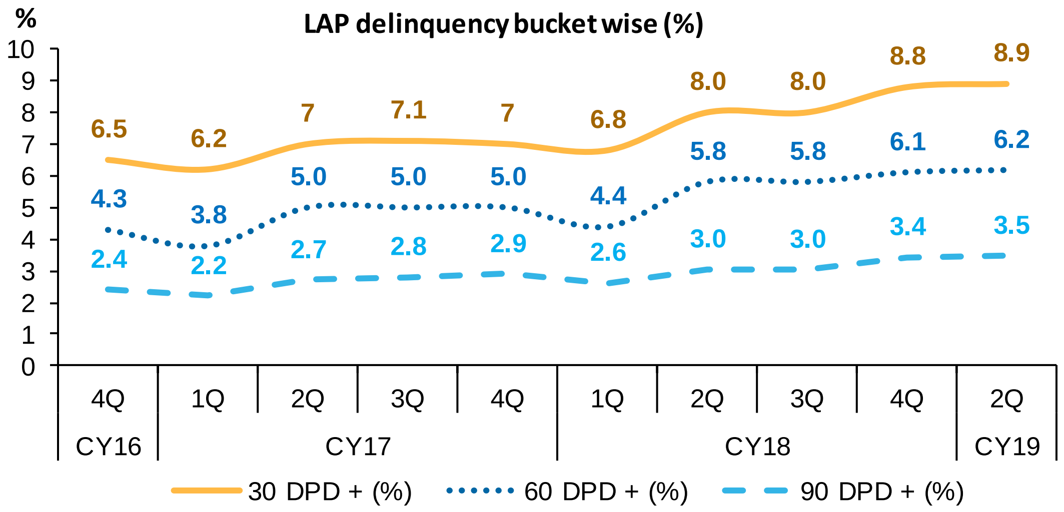
Source: CIBIL, Macquarie Research, December 2019

Fig 38 System-wide credit card delinquencies have remained stable over the past few years



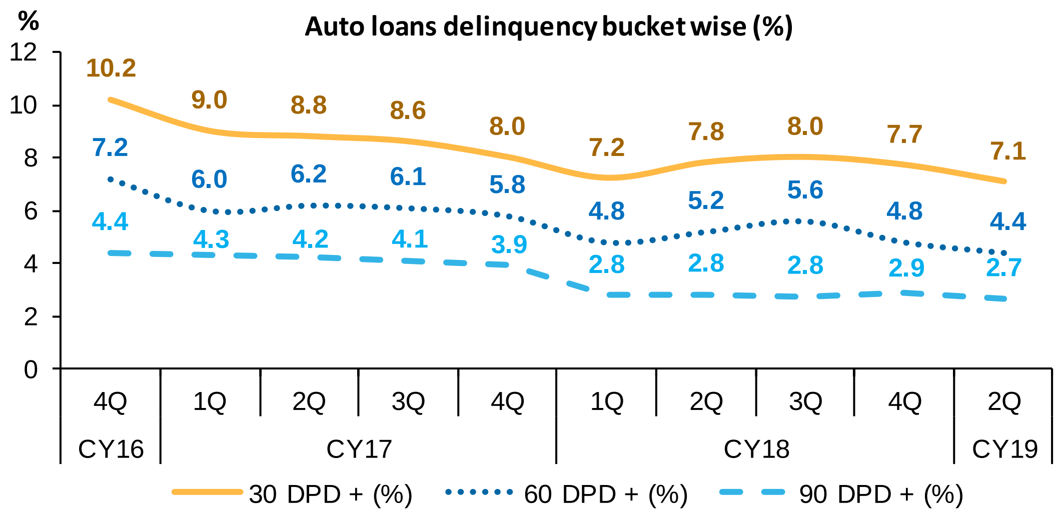
Source: CIBIL, Macquarie Research, December 2019

Fig 39 Systemwide LAP delinquencies have risen over the past few years



Source: Company data, Macquarie Research, December 2019

Fig 40 Trend in system-wide auto loan delinquencies

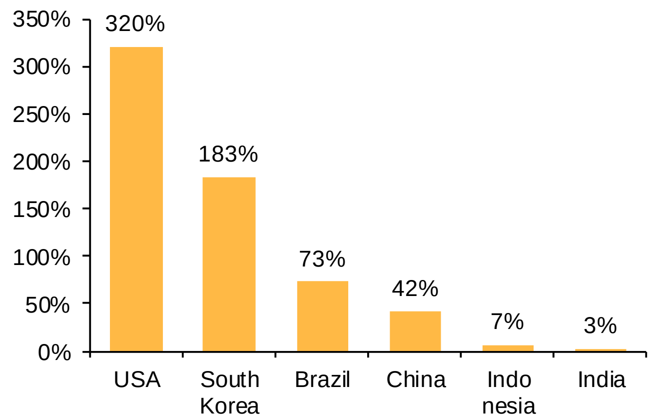


Source: Company data, Macquarie Research, December 2019

Size of the prize

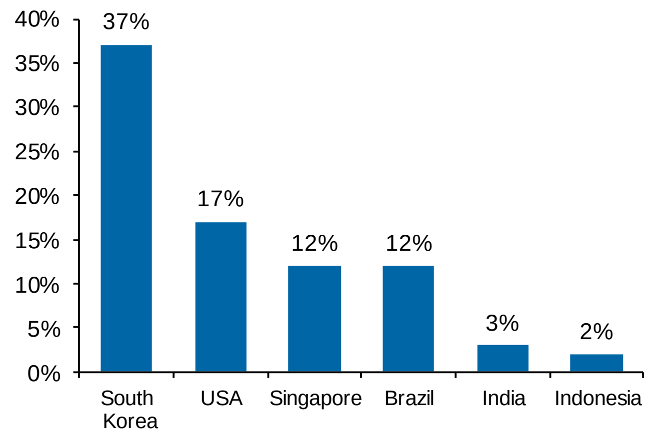
How much of India is cardable? Despite the strong growth in the past five years, India's ranks low on various top-down penetration metrics – be it carded population or spends per card when compared against peers and developed economies. While we acknowledge that a large part of this is due to lower per-capita income in India, we believe there is reasonable scope for the current ~30m carded population base to go up to ~100m in the medium term. India's credit card industry is expected to remain in a high-growth phase for the foreseeable future. However, once the top 100m customers in the country are tapped, we expect the growth in cardable customers to grow in line with average per-capita income.

Fig 41 Credit card penetration per capita (%)



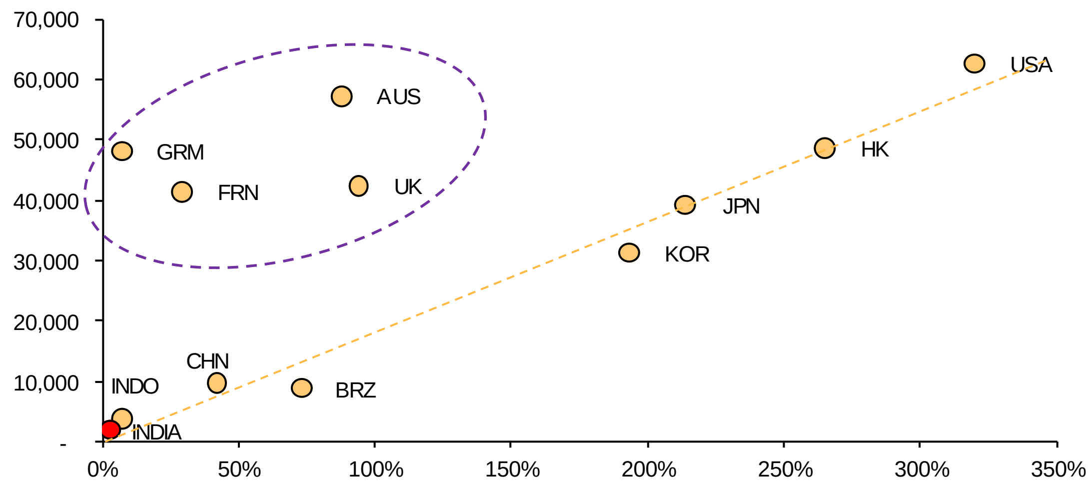
Source: Bank for International Settlement (BIS), CRISIL, Macquarie Research, December 2019

Fig 42 Credit card spends as a % of GDP



Source: Bank for International Settlement (BIS), CRISIL, Macquarie Research, December 2019

Fig 43 Credit card penetration has grown in line with per-capita income, with notable exceptions being some European countries, where penetration remains low



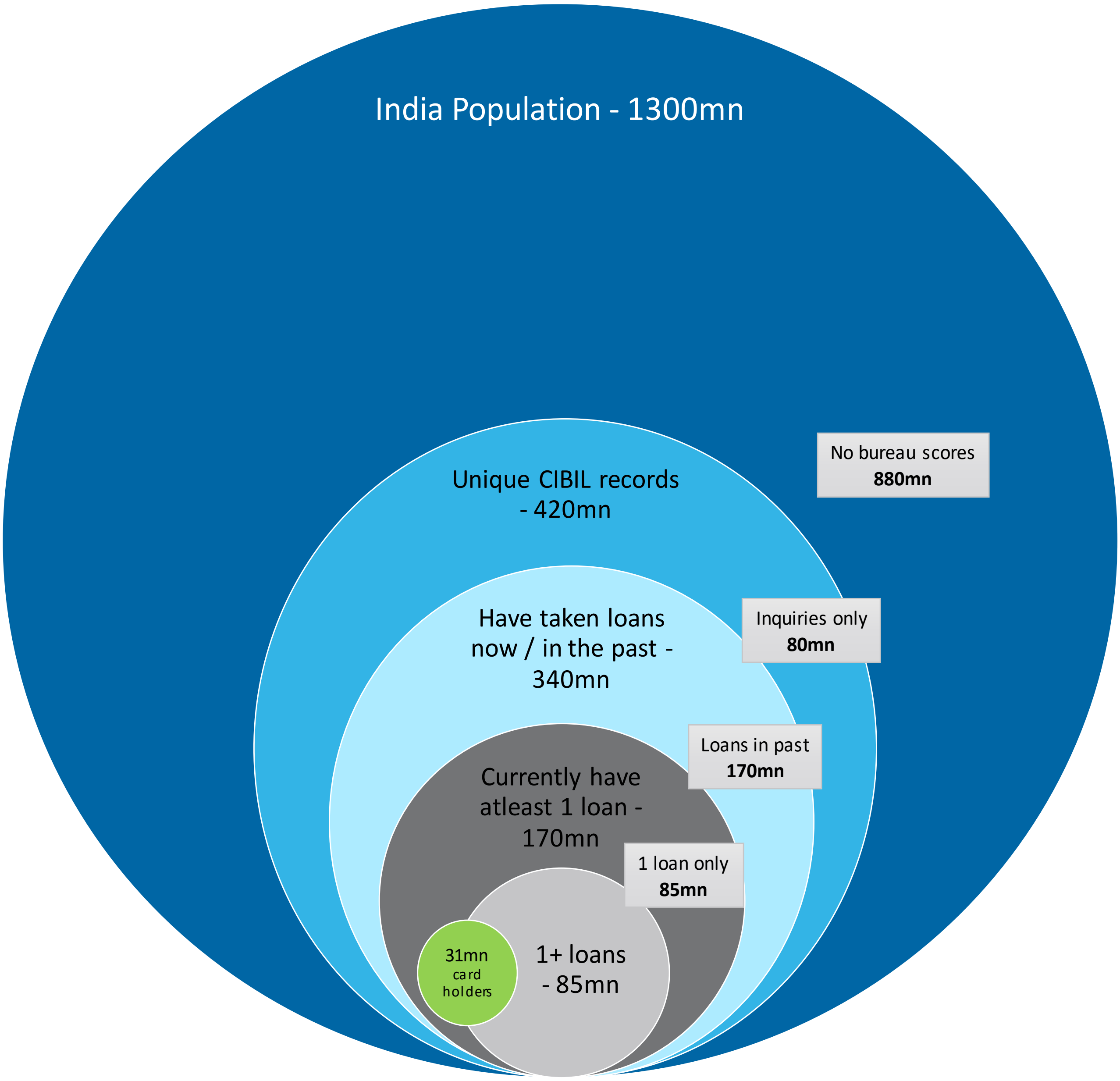
Source: Wold Bank, RBI, Company data, Macquarie Research, December 2019

How long will the high growth phase last?

- Off India's 1.3bn strong population, the country's largest credit bureau CIBIL has 420m+ unique retail records (not including microfinance records).
- 80m of these were only enquiries, and never translated into loan sanctions. i.e. banks checked the customers' creditworthiness with CIBIL but did not ultimately sanction the loan.
- Approximately half of the remainder (~170m) currently have at least one retail loan, while the other half (~170m) used to have a loan in the past, but do not currently have a loan.
- Of the 170m that are currently indebted, half of them (~85m) have more than one loan account (eg: home loan + credit card or personal loan + auto loan). The remaining have only one retail loan.
- There are ~31m individual credit card holders in India and we think there is scope to get that up to ~100m in the medium term. For context, India had ~50m individuals with reported taxable income above the exempt limit in FY18.

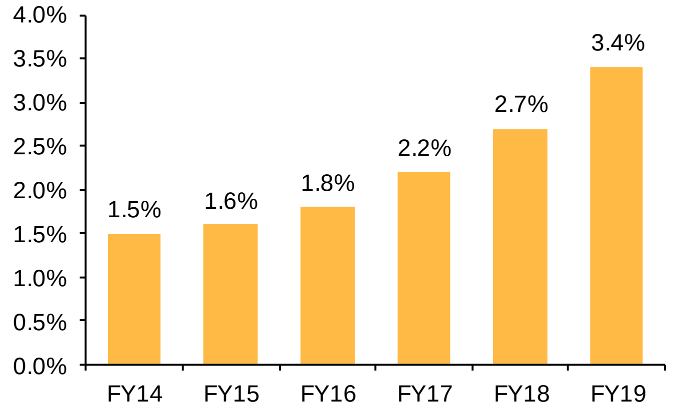
Growth in the medium term, i.e. until we reach a carded base of 100m, is not a challenge in our view.

Fig 44 What proportion of India is carded?



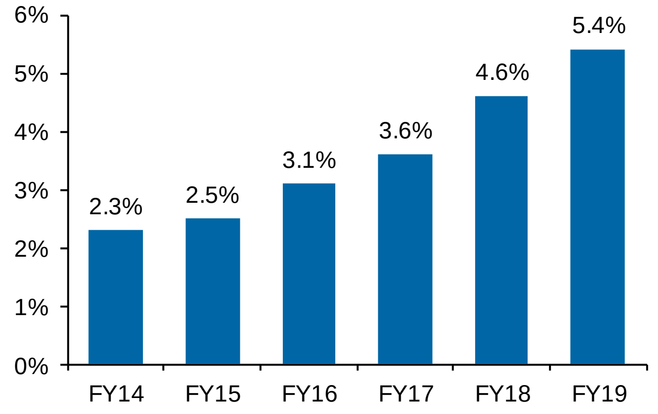
Source: CIBIL, Macquarie Research, December 2019

Fig 45 India's credit card penetration per capita over time



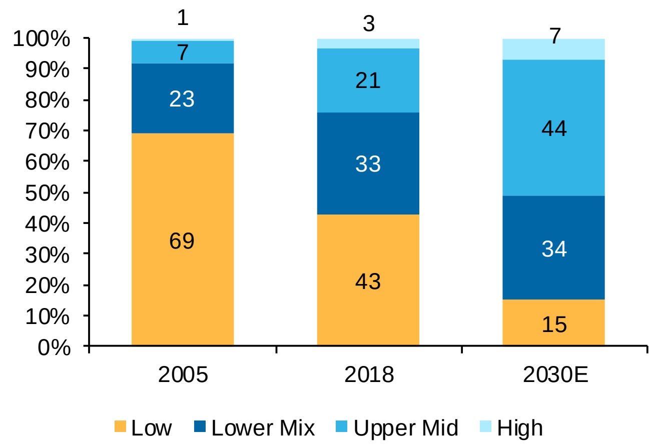
Source: RBI, CRISIL, Macquarie Research, December 2019

Fig 46 India's credit card spends of per capita PFCE



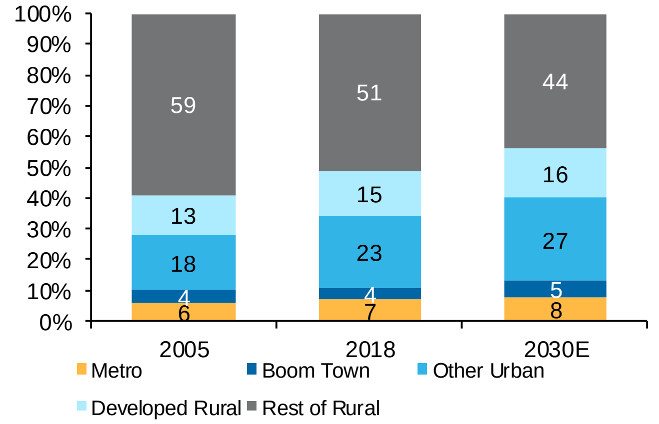
Note: PFCE = private final consumption expenditure.
Source: RBI, CRISIL, Macquarie Research, December 2019

Fig 47 India demography – expected income strata moves



Source: IBEF, Macquarie Research, December 2019

Fig 48 India demography – expected urbanization trends



Source: IBEF, Macquarie Research, December 2019

What is the opportunity in credit card spends / payments?

Cash is still king in India and cash transactions constitute 80%+ of all transactions. This is a far cry from China, where virtually all transactions are done digitally (Fig 49). Credit card spends constitute a tiny proportion (~6%) of the overall pie within non-cash payment.

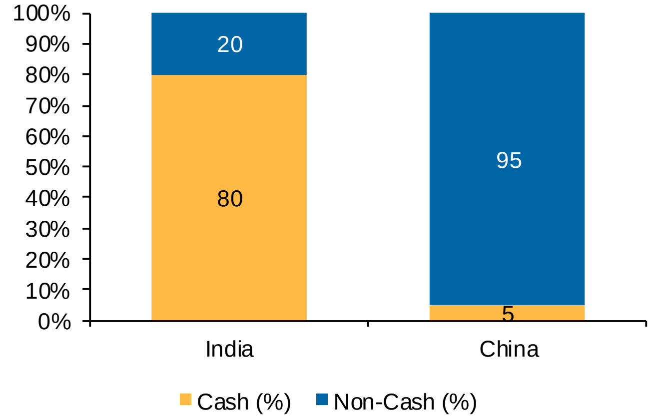
It is a misnomer that card spends compete with new payment modes such as UPI (Unified Payment Interface), wallets and mobile banking.

As per HDFC Bank, in their tenured experience as market leaders in retail banking as well as credit cards business, when a customer adopts new forms of payments such as UPI or mobile wallets, over time his appetite to transact with "higher" forms of digital payments such as debit and credit cards also goes up.

This is because users tend to prefer different payment modes for different types of transactions. For example, small payments under Rs1000 between friends or colleagues are now done increasingly through wallets like PayTM and UPI. These transactions never competed against card transactions but were done via cash. Similarly, higher ticket purchases from ecommerce websites are typically dominated by card payments and net banking.

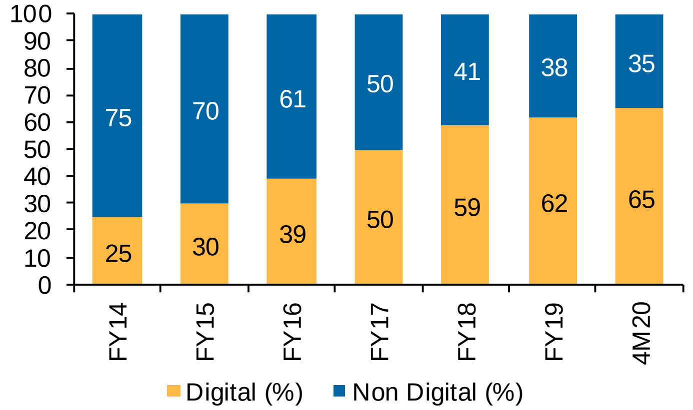
UPI, wallets and mobile banking are indeed gaining market share – but viewing the mix and ignoring the absolute growth in each form of payment is a misleading way of looking at it, in our view. New payment forms are only expanding the addressable universe for digital payments (incl. over time, credit cards).

Fig 49 Share of cash and non-cash transactions



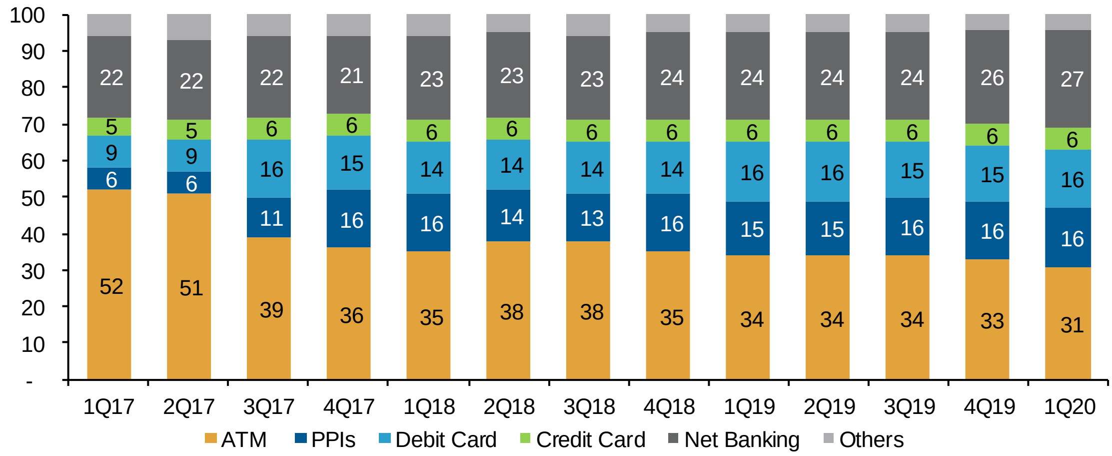
Source: Media reports, Macquarie Research, December 2019

Fig 50 Share of digital and non-digital transactions within non-cash transactions



Source: RBI, CRISIL, Macquarie Research, December 2019

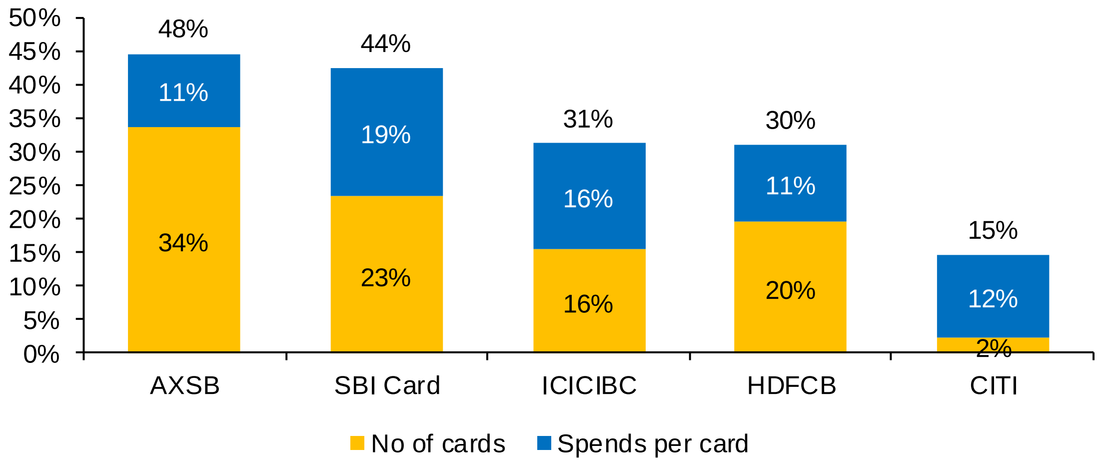
Fig 51 Mix of non-cash transactions – transactions at ATMs and branches on the decline



Source: RBI, CRISIL, Macquarie Research, December 2019

How long will card payments remain in a high growth phase? Over the last five years, credit card spends across players have grown very fast (See Fig 52). Decomposing the 5-year CAGR in card spends between card issuances and organic spends per card growth, we see that a significant chunk of growth was driven by new card additions. As explained above, as growth in number of cards in use tapers down to sustainable long-term averages, growth in card spends will also slow. Growth in spends beyond that will be largely organic (i.e. spends per card) growth.

Fig 52 Decomposition of 5-year CAGR in credit card spends between card issuances and organic spends per card growth



Source: Company data, Macquarie Research, December 2019

Competitive landscape:

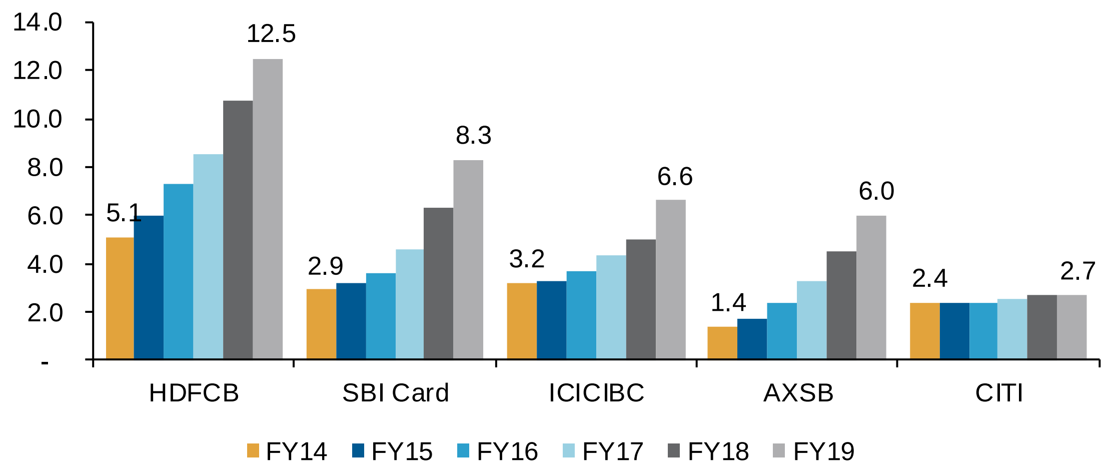
Cross-section of India's top card issuers & interesting observations:

While there are 30+ companies offering cards in India, the top 4 (HDFC Bank, SBI Cards, ICICI Bank and Axis Bank) control 70%+ of cards/spends market share. Much like in India's life insurance business, these top banks with a **large, captive retail customer base enjoy a massive right-to-win**. Virtually all other PSU banks are absent from the space, while Citi Bank, Standard Chartered and Amex are notable foreign players.

Strong growth in cards in the past five years has been a function of improving penetration and has so far not resulted in irrational competition. Banks have held on to interest rates and fees charged and not veered into diluting underwriting standards for growth and market share.

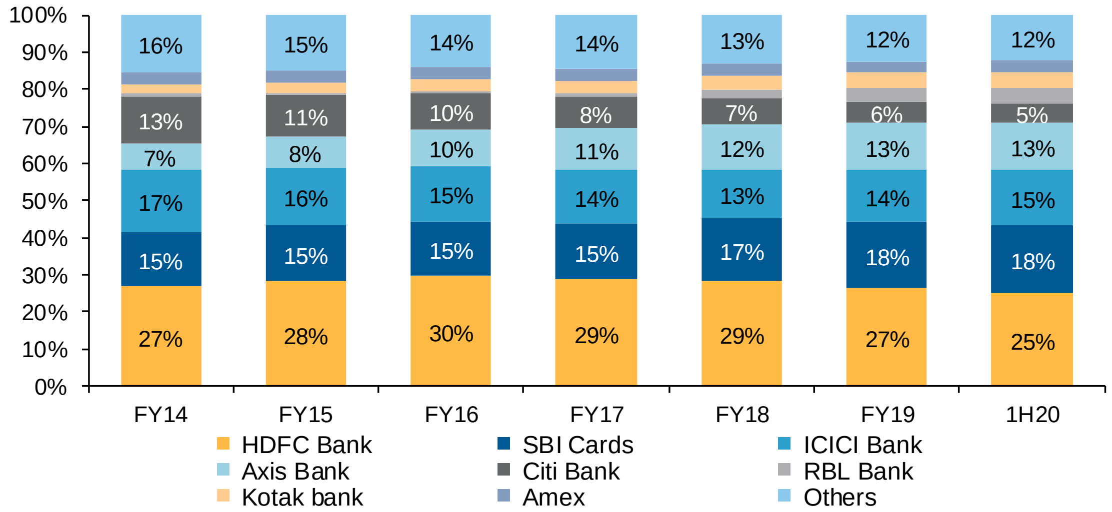
- **HDFC Bank** is the clear market leader and has dominated the space for years. It has about one-fourth of the industry's cards outstanding & card spends and more than 50% of loan market share.
- **SBI Cards** is a standalone credit card company (subsidiary of SBI in partnership with Carlyle) and is the second largest issuer. Notably, the company is the only PSU Bank backed a company active in a space dominated by private and foreign banks. It has 17-18% share of cards in use and spends.
- **ICICI Bank and Axis Bank** in the past few years have also shifted focus from the corporate side to retail loans, and increasingly within retail loans to unsecured loans like credit cards and personal loans. They follow closely behind HDFC and SBI in terms of market share in cards and spends.

Fig 53 Number of credit cards in force (m)



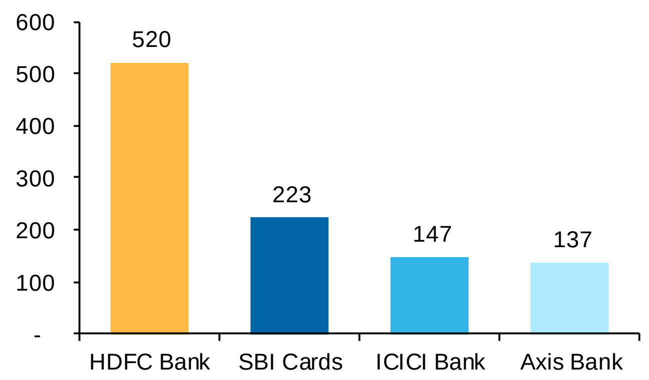
Source: RBI, Company data, Macquarie Research, December 2019

Fig 54 Market share – number of active credit cards outstanding over time



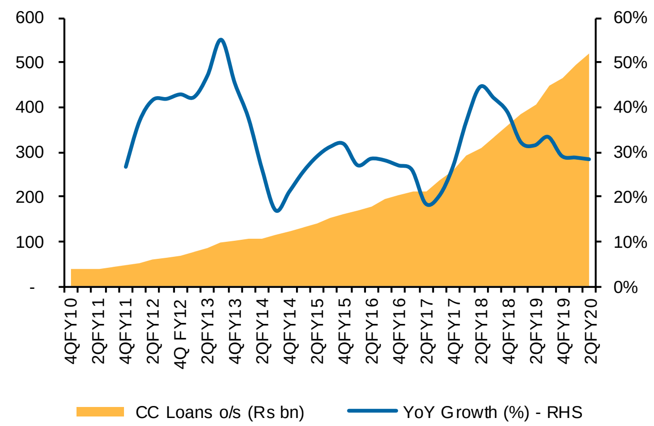
Source: RBI, Company data, Macquarie Research, December 2019

Fig 55 Credit card loans o/s – 1HFY20



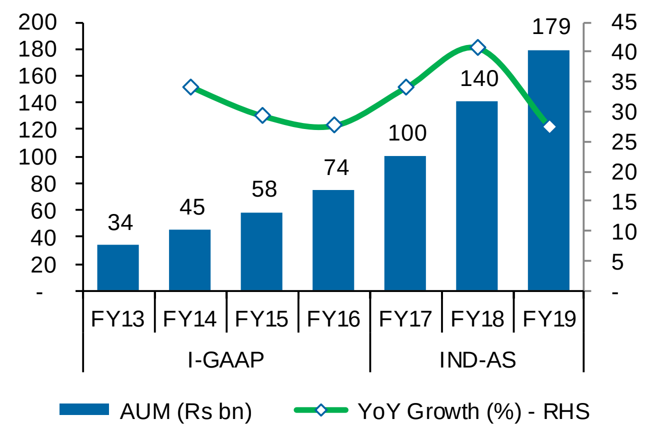
Source: Company data, Macquarie Research, December 2019

Fig 56 Trend in credit card loans o/s growth – HDFC Bank



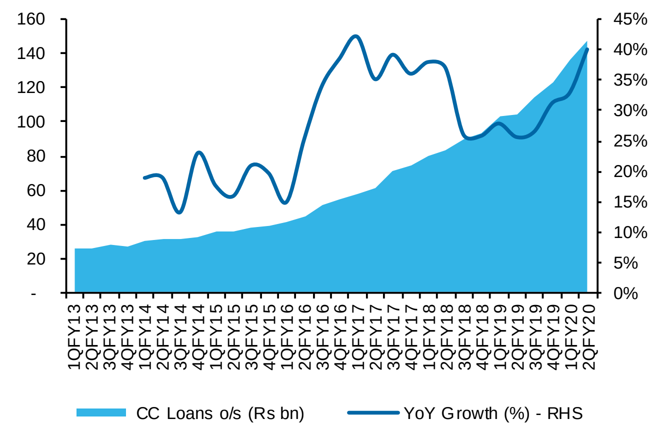
Source: Company data, Macquarie Research, December 2019

Fig 57 Trend in credit card loans o/s growth – SBI Cards



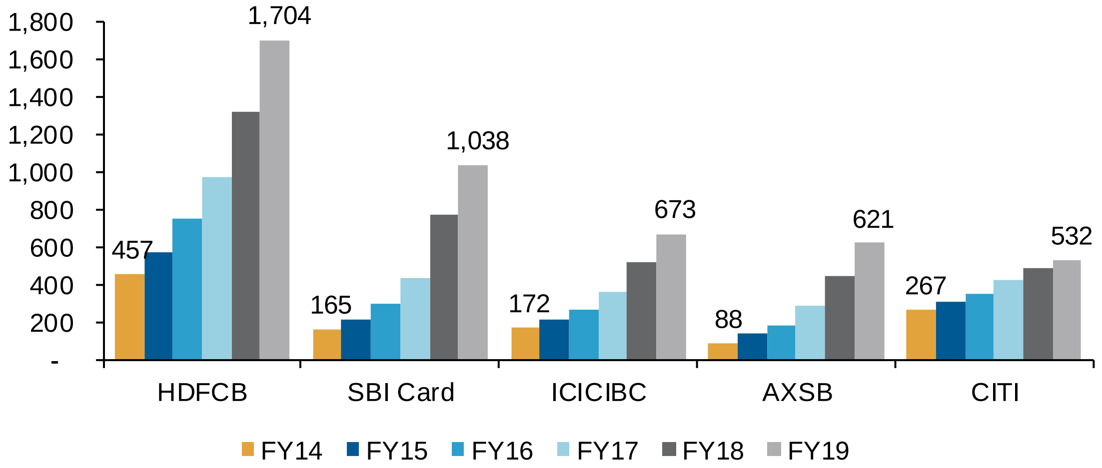
Source: Company data, Macquarie Research, December 2019

Fig 58 Trend in credit card loans o/s growth – ICICI Bank



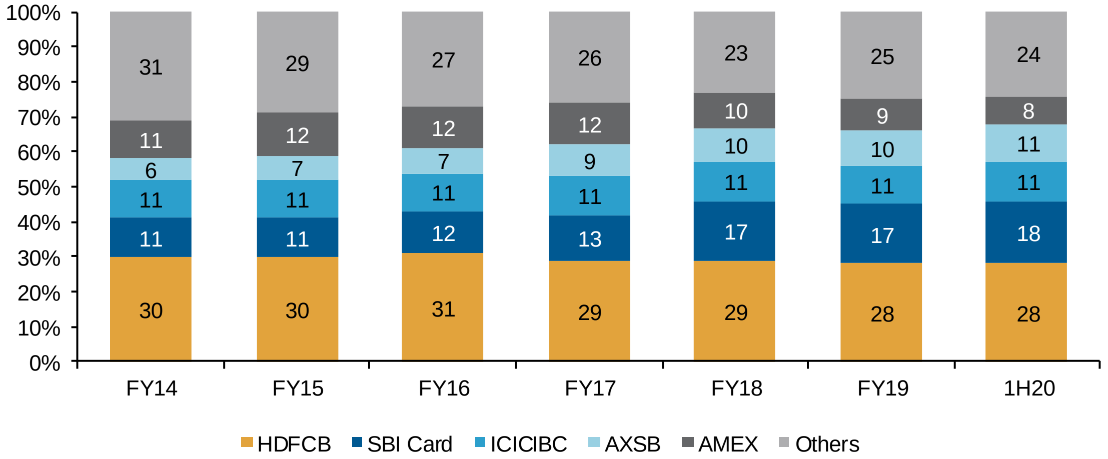
Source: Company data, Macquarie Research, December 2019

Fig 59 Total credit card spends (Rs bn)



Source: RBI, Company data, Macquarie Research, December 2019

Fig 60 Market share – credit card spends (%)

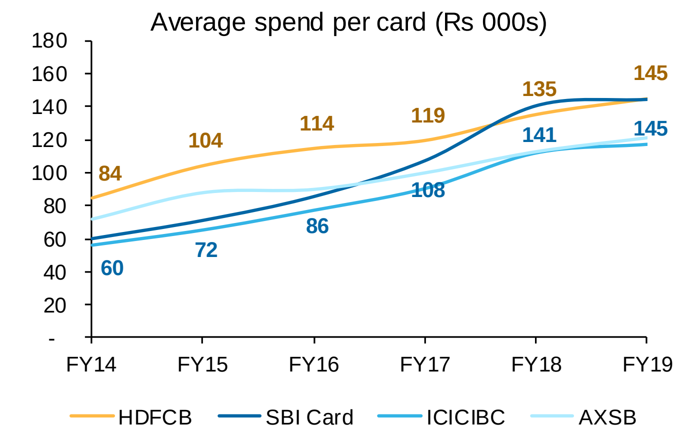


Source: RBI, Company data, Macquarie Research, December 2019

Interesting observations:

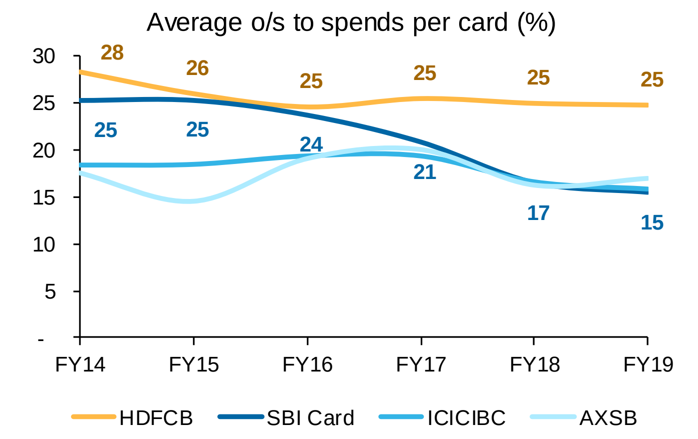
- SBI Cards has improved the quality of its active card users and has been more than doubling spends per card in the past five years from Rs60,000 per annum to Rs145,000 per annum. This is now in line with the spends per card of the market leader – HDFC Bank.
- Notably, over FY18-19, the average loans o/s as % of card spends for the industry has shifted down from ~25% to ~15%, across players. HDFC Bank is the exception here, which has remained at 25%.

Fig 61 Average spends per card (Rs 000s)



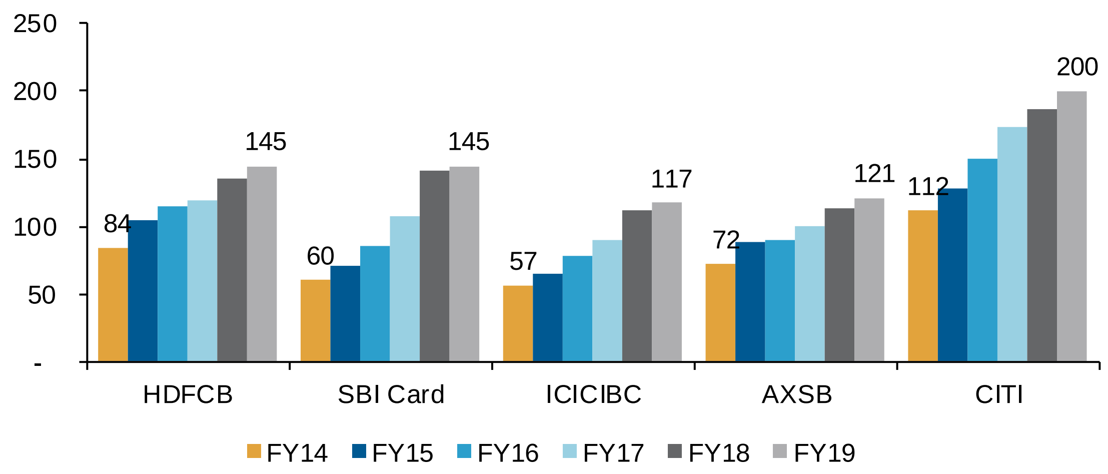
Source: Company data, Macquarie Research, December 2019

Fig 62 Average o/s per card to spends per card (%)



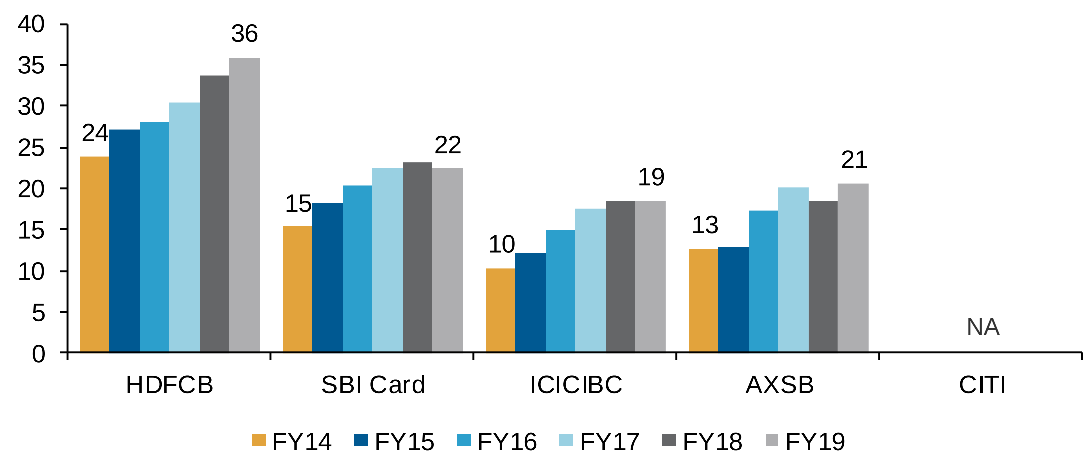
Source: Company data, Macquarie Research, December 2019

Fig 63 Average spends per card in force (Rs 000s)



Source: RBI, Company data, Macquarie Research, December 2019

Fig 64 Average outstanding per card in force (Rs 000s)



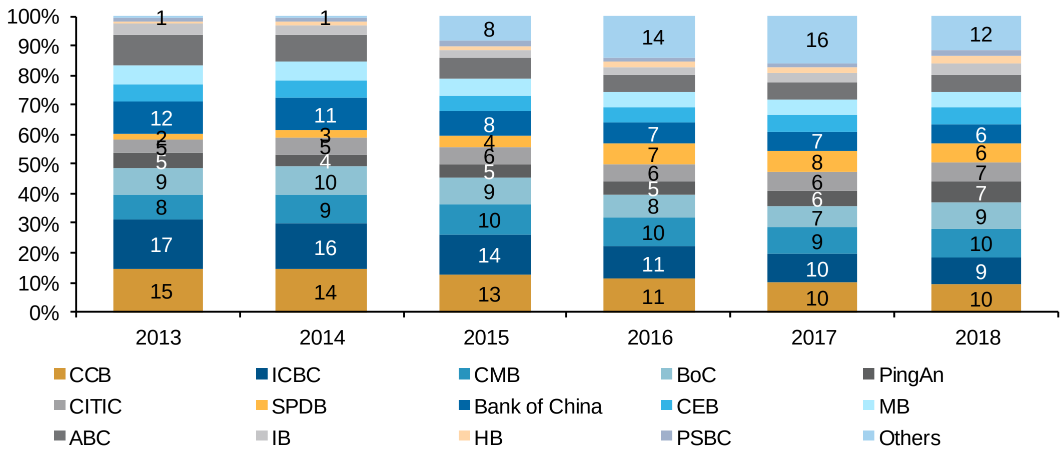
Source: RBI, Company data, Macquarie Research, December 2019

Why did market leaders in China lose market share in cards?

Interestingly, in China – the market leaders such as China Construction Bank (CCB), Industrial and Commercial Bank of China (ICBC) and Bank of China have all lost market share. In China, non-bank players active in the cards space are largely fintechs. They cannot issue credit cards per se but are providing similar or alternative unsecured consumer products to the market, such as online micro-loans.

Some Chinese banks are deepening their exposure by partnering with internet-retail companies to expand their access to high-yield customers. The fintech model appeals to smaller city commercial banks and rural commercial banks with limited access to Big Data and weaker underwriting capability.

Fig 65 Market leaders in China have lost market share (cards in use)



Source: Company data, Macquarie Research, December 2019

How do you value such businesses?

Given that half the revenues come from interest on short-term credit (which is inherently cyclical) and the other half comes from card- and spend-related fees (which are more linear), it is an interesting debate as to what valuation model to use.

- Price-to-earnings (PER) helps capture the growth and compounding better than a Gordon-growth based justified P/BV multiple but does not capture the inherent cyclicality of the credit segment.
- Price to book (P/BV) is a more robust measure for cyclical industries especially lenders such as banks and NBFCs, however it tends to under-capture growth potential.

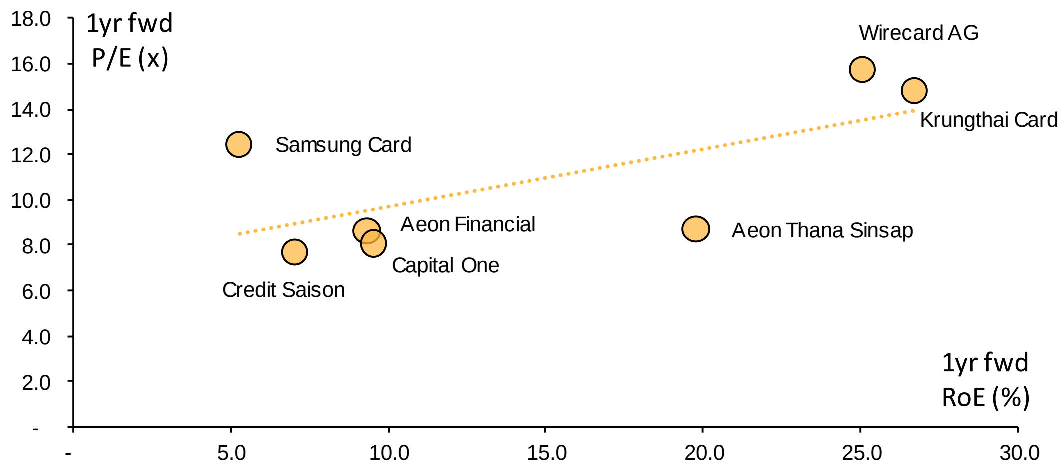
There are no two ways about it – the business is indeed cyclical. Perhaps the choice of methodology depends on a consideration of how imminent one thinks think the next retail credit cycle in India will be.

Fig 66 Global comparisons – card and consumer credit companies

Company	CMP	ROA (%)			ROE (%)			PER			P/BV		
		FY1e	FY2e	FY3e	FY1e	FY2e	FY3e	FY1e	FY2e	FY3e	FY1e	FY2e	FY3e
Samsung Card	41,650	1.5	1.5	1.5	5.0	5.1	5.3	13.7	13.2	12.5	0.7	0.7	0.6
Credit Saison	1,886	1.0	1.1	1.2	6.3	7.0	7.0	9.8	8.1	7.7	0.6	0.6	0.5
Aeon Financial	1,718	0.7	0.7	0.7	9.4	9.6	9.3	10.1	9.1	8.6	0.9	0.8	0.7
Aeon Thana	188	4.5	4.7	4.7	21.0	20.3	19.8	11.4	10.0	8.7	2.2	1.9	1.7
Krungthai Card	40	6.9	7.2	7.4	31.8	28.8	26.7	17.4	15.7	14.8	5.2	4.3	3.7
Wirecard AG	119	8.5	9.6	10.4	23.8	24.7	25.1	27.8	20.8	15.7	5.8	4.6	3.6
Capital One	104	1.5	1.4	1.4	10.0	9.3	9.5	9.4	9.2	8.1	0.9	0.8	0.7

Source: Bloomberg, Company data, Macquarie Research, December 2019; Note: Bloomberg consensus estimates.

Fig 67 Global comparisons – card and consumer credit companies



Source: Bloomberg, Company data, Macquarie Research, December 2019

Fig 68 Financial statements – SBI Cards (one of India's only standalone credit card companies)

Income Statement	I-GAAP				INDAS		
(Rs mn)	FY13	FY14	FY15	FY16	FY17	FY18	FY19
Interest income	6,014	8,565	10,823	13,803	18,882	27,600	35,757
Interest expense	2,101	3,033	3,728	4,304	5,284	7,076	10,094
Net interest income	**3,912**	**5,532**	**7,095**	**9,500**	**13,597**	**20,524**	**25,664**
Other Income	4,579	6,648	8,221	11,118	15,829	26,102	37,111
Total Income	**8,491**	**12,181**	**15,317**	**20,618**	**29,426**	**46,626**	**62,775**
Operating expenses	5,921	7,451	10,279	13,558	18,390	29,406	39,154
Pre-provisioning profit	**2,571**	**4,729**	**5,037**	**7,060**	**11,036**	**17,221**	**23,621**
Provisions	1,216	1,798	2,331	2,679	5,320	7,990	10,270
PBT	**1,355**	**2,931**	**2,707**	**4,381**	**5,716**	**9,230**	**13,351**
Tax	(8)	0	40	1,543	1,988	3,195	4,701
PAT	**1,363**	**2,931**	**2,667**	**2,839**	**3,729**	**6,035**	**8,650**
Balance Sheet	**I-GAAP**				**INDAS**		
(Rs mn)	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**
No of shares (mn)	785.0	785.0	785.0	785.0	785.0	785.0	837.2
Net Worth	4,530	7,460	9,656	11,550	14,502	23,569	35,878
Borrowings	28,035	35,727	46,988	59,281	82,459	113,040	135,494
Other Liabilities	2,367	4,062	5,929	7,972	10,479	19,218	30,090
Total Liabilities	**34,932**	**47,248**	**62,573**	**78,803**	**107,440**	**155,826**	**201,462**
Cash & Cash equivalents	837	1,521	2,915	2,745	2,829	4,727	7,768
Loans & Advances	33,590	45,082	58,307	74,460	99,829	140,455	179,087
Other assets	505	645	1,352	1,599	4,782	10,644	14,607
Total Assets	**34,932**	**47,248**	**62,573**	**78,803**	**107,440**	**155,826**	**201,462**
DuPont (average assets)	**I-GAAP**				**INDAS**		
(%)	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**
Interest income	17.2	20.8	19.7	19.5	20.3	21.0	20.0
Interest expense	6.0	7.4	6.8	6.1	5.7	5.4	5.7
Net Interest income	**11.2**	**13.5**	**12.9**	**13.4**	**14.6**	**15.6**	**14.4**
Other income	13.1	16.2	15.0	15.7	17.0	19.8	20.8
Total Income	24.3	29.6	27.9	29.2	31.6	35.4	35.1
Operating expenses	16.9	18.1	18.7	19.2	19.7	22.3	21.9
Pre-provisioning profit	**7.4**	**11.5**	**9.2**	**10.0**	**11.9**	**13.1**	**13.2**
Provisions	3.5	4.4	4.2	3.8	5.7	6.1	5.7
PBT	**3.9**	**7.1**	**4.9**	**6.2**	**6.1**	**7.0**	**7.5**
Provision for Tax	(0.0)	0.0	0.1	2.2	2.1	2.4	2.6
ROAA	**3.9**	**7.1**	**4.9**	**4.0**	**4.0**	**4.6**	**4.8**
Leverage	7.7	6.9	6.4	6.7	7.1	6.9	6.0
ROAE	**30.1**	**48.9**	**31.2**	**26.8**	**28.6**	**31.7**	**29.1**

Source: Company data, December 2019

Fig 69 Important Ratios – SBI Cards (one of India's only standalone credit card companies)

Growth Ratios	I-GAAP				INDAS		
(%)	FY13	FY14	FY15	FY16	FY17	FY18	FY19
NII		41.4	28.2	33.9	43.1	50.9	25.0
Other Income		45.2	23.7	35.2	42.4	64.9	42.2
Total Income		43.4	25.7	34.6	42.7	58.5	34.6
PPoP		84.0	6.5	40.2	56.3	56.0	37.2
PAT		115.0	(9.0)	6.4	31.4	61.9	43.3
Loans & Advances		34.2	29.3	27.7	34.1	40.7	27.5
Net worth		64.7	29.4	19.6	25.6	62.5	52.2
Cards		11.1	10.5	14.6	26.2	37.0	32.2
Spends		44.3	29.1	36.9	50.5	75.6	34.6
EPS		115.0	(9.0)	6.4	31.4	61.9	34.4
BVPS		64.7	29.4	19.6	25.6	62.5	42.7
Annual Per card metrics	**I-GAAP**				**INDAS**		
(Rs)	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**
No of cards (mn)	2.6	2.9	3.2	3.6	4.6	6.3	8.3
Spends	44,422	60,737	70,758	85,988	107,105	142,275	142,693
Interest income	2,337	3,154	3,598	4,073	4,611	5,098	4,922
NII	1,521	2,037	2,359	2,803	3,321	3,791	3,533
Other Income	1,780	2,448	2,733	3,281	3,866	4,821	5,108
Total Income	3,300	4,486	5,092	6,084	7,187	8,613	8,641
Opex	2,301	2,744	3,417	4,001	4,491	5,432	5,389
PPoP	**999**	**1,742**	**1,675**	**2,083**	**2,695**	**3,181**	3,251
Provisions	472	662	775	790	1,299	1,476	1,414
PAT	**530**	**1,079**	**887**	**838**	**911**	**1,115**	**1,191**
Important Ratios	**I-GAAP**				**INDAS**		
(%)	**FY13**	**FY14**	**FY15**	**FY16**	**FY17**	**FY18**	**FY19**
Tier I (%)	12.6	16.0	15.0	14.3	11.7	12.6	14.9
Tier II (%)	4.7	3.0	3.6	3.9	4.4	5.9	5.3
CAR (%)	17.3	19.0	18.6	18.1	16.1	18.6	20.1
GNPA (%)	NA	1.0	1.8	2.0	1.6	2.9	2.5
NNPA (%)	NA	0.7	1.4	1.5	1.2	1.0	0.8
PCR (%)	NA	26.0	25.3	25.2	26.0	67.3	66.6
Provisions to avg. assets (%)	3.5	4.4	4.2	3.8	5.7	6.1	5.7
Yield on loans (%)	17.9	21.8	20.9	20.8	21.7	23.0	22.4
Cost of funds (%)	7.5	9.5	9.0	8.1	7.5	7.2	8.1
Spreads (%)	10.4	12.3	11.9	12.7	14.2	15.7	14.3
NIM (%)	11.6	14.1	13.7	14.3	15.6	17.1	16.1

Source: Company data, December 2019

Important disclosures:

Recommendation definitions

Macquarie – Asia and USA
Outperform – expected return >10%
Neutral – expected return from -10% to +10%
Underperform – expected return <-10%

Macquarie – Australia/New Zealand
Outperform – expected return >10%
Neutral – expected return from 0% to 10%
Underperform – expected return <0%

Note: expected return is reflective of a Medium Volatility stock and should be assumed to adjust proportionately with volatility risk

Volatility index definition*

This is calculated from the volatility of historical price movements.

Very high–highest risk – Stock should be expected to move up or down 60–100% in a year – investors should be aware this stock is highly speculative.

High – stock should be expected to move up or down at least 40–60% in a year – investors should be aware this stock could be speculative.

Medium – stock should be expected to move up or down at least 30–40% in a year.

Low–medium – stock should be expected to move up or down at least 25–30% in a year.

Low – stock should be expected to move up or down at least 15–25% in a year.
* Applicable to select stocks in Asia/Australia/NZ

Recommendations – 12 months
Note: Quant recommendations may differ from Fundamental Analyst recommendations

Financial definitions

All "Adjusted" data items have had the following adjustments made:
Added back: goodwill amortisation, provision for catastrophe reserves, IFRS derivatives & hedging, IFRS impairments & IFRS interest expense
Excluded: non recurring items, asset revals, property revals, appraisal value uplift, preference dividends & minority interests

EPS = adjusted net profit / efpowa*
ROA = adjusted ebit / average total assets
ROA Banks/Insurance = adjusted net profit /average total assets
ROE = adjusted net profit / average shareholders funds
Gross cashflow = adjusted net profit + depreciation
*equivalent fully paid ordinary weighted average number of shares

All Reported numbers for Australian/NZ listed stocks are modelled under IFRS (International Financial Reporting Standards).

Recommendation proportions – For quarter ending 30 September 2019

	AU/NZ	Asia	RSA	USA	EUR	
Outperform	43.12%	58.72%	48.53%	52.06%	54.02%	(for global coverage by Macquarie, 3.09% of stocks followed are investment banking clients)
Neutral	39.49%	28.86%	41.18%	44.19%	37.50%	(for global coverage by Macquarie, 3.35% of stocks followed are investment banking clients)
Underperform	17.39%	12.42%	10.29%	3.75%	8.48%	(for global coverage by Macquarie, 3.08% of stocks followed are investment banking clients)

Note: This table does not reflect the announced cessation of research coverage published on November 1, 2019.

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